

UC Libraries
Shared Print Collection

BUILDING USE ONLY

Digitized by the Internet Archive

in 2017 with funding from

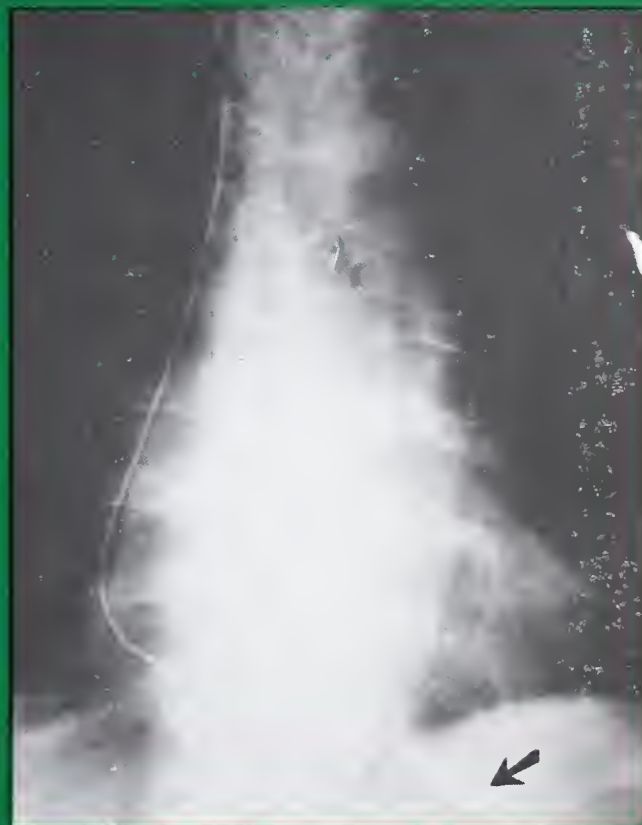
The National Endowment for the Humanities and the Arcadia Fund

<https://archive.org/details/rhodeislandmedic65unse>

Rhode Island Medical Journal

January 1982
Volume 65, Number 1

Frontal chest film showing
pacemaker electrode (solid arrow)
See page 37



CONTRIBUTIONS

- 25 Epidural Stimulation for Pain Control in the "Failed Disc" Syndrome
- 29 Poised in Equilibrium: Doctors and Their Patients
- 37 Recurrent Pacemaker Electrode Displacement into the Right Atrium with Capture

NEWSLETTER

SEMI-ANNUAL CME CALENDAR

PRESIDENT'S CORNER

EDITORIALS

EDITOR'S MAILBOX

RADIOGRAPHIC CASE OF THE MONTH

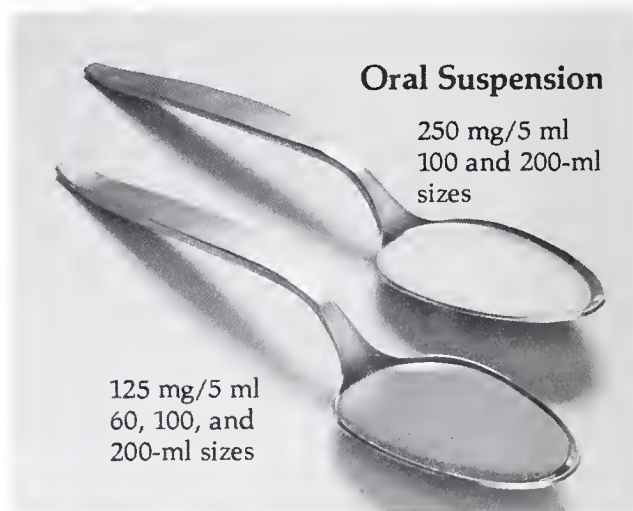
LIBRARY
U.C. SAN FRANCISCO

FEB 1 1982

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes



Pediatric Drops

100 mg/ml
10-ml size

Keflex®

cephalexin

Additional information available
to the profession on request.



000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Rhode Island Medical Journal

January 1982
Volume 65, Number 1

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

***Guy A. Settipane, MD**
Chairman

***Stanley M. Aronson, MD**
Contributing Editor

Paul Calabresi, MD

***Herbert Fanger, MD**

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

***Peter L. Mathieu, Jr., MD**

Umberto Capuano
Student

*Member of Publications Committee

***Jay M. Orson, MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Charles E. Millard, MD
President

William F. Varr, Jr., MD
Vice President

David R. Hallmann, MD
Secretary

Melvin D. Hoffman, MD
President-Elect

Erminio Cardi, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Alexander Arvanitidis, MD
Bristol County Medical Society

Frank G. De Luca, MD
Providence Medical Association

William F. Varr, Jr., MD
Kent County Medical Society

Joseph J. O'Neill, MD
Washington County Medical Society

Peter D. T. Clarisse, MD
Newport County Medical Society

Roger J. Fontaine, MD
Woonsocket District Medical Society

Richard G. Bertini, MD
Pawtucket Medical Association



Are you protected if your accounts receivable records are destroyed?

The Office Protection Plan (TOP) gives you one low-cost policy that covers:

- Destroyed accounts receivable
- Employee dishonesty and embezzlement
- Destroyed patient charts
- Office liability
- Personal injury
- Office equipment
- Practice interruption

Plus many other significant risks faced by physicians. And TOP covers these risks fully ... adequately ... so you need not worry again about loss. For more information on TOP, call Don Marcum at (401) 421-6900.



ESTABLISHED 1879

**Starkweather
& Shepley** INC.

Complete Business & Personal Insurance, Pension & Estate Planning
155 South Main Street, Providence, RI 02903 Telephone (401) 421-6900

TABLE OF CONTENTS

5 **NEWSLETTER**

7 **SEMI-ANNUAL CME CALENDAR**

13 **PRESIDENT'S CORNER**

Health Planning May Be Dangerous to Your Health

15 **EDITORIALS**

Nursing Home Bed Information System
Medical Aspects of Sports: A Continuing Challenge
Smoking in the Work Place

17 **EDITOR'S MAILBOX**

It Is We Who Must Change

19 **RADIOGRAPHIC CASE OF THE MONTH**

CONTRIBUTIONS

25 **Epidural Stimulation for Pain Control**

Success Is Possible in One-Half of Cases If Carefully Selected
T. A. Leclercq, MD, FACS

29 **Poised in Equilibrium: Doctors and Their Patients**

Fiske Fund Prize Dissertation 1980
Rita Charon, MD

37 **Recurrent Pacemaker Electrode Displacement into the Right Atrium with Capture**

Improved Equipment Tends to Reduce the Incidence of This Complication
Constantine P. Pagonis, MD Paul C. Hessler, MD

**When
we help
establish
your
practice,
your
primary
cares will
be solved.**

To establish a Primary Care practice, your first need is to solve your primary cares. That's where we come in.

We can offer you a choice of over 60 well equipped acute care hospitals coast to coast. We can offer you selected financial assistance. We can offer you management consulting.

So whether you're interested in a solo, partnership, or group practice, contact NME today.

We'll help establish your practice. And solve your primary cares.

For further information, contact:
Raymond C. Prulitt, Director, Physician Relations
National Medical Enterprises
11620 Wilshire Blvd., Los Angeles, California 90025.
Call Toll-Free 800-421-7470
or collect (213) 479-5526.

**NATIONAL MEDICAL
ENTERPRISES, INC.**



"The Total Health Care Company."
An Equal Opportunity Employer M/F

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.
Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

***"To Some People We're
More Than A Service."***

Newsletter

January 1982

Charles E. Millard, MD, Editor
Karen Challberg, Associate Editor

HEALTH CARE "BILL" FOR 1980

Our health care "bill" was \$247 billion in 1980, 9.4 per cent of the gross national product, an increase of 15.2 per cent over 1979, and the biggest annual rise in the past fifteen years. Private health costs were \$143 billion, or 57.8 per cent of the total, a drop in the private share of costs from 74.1 per cent in 1965. Inflation alone accounts for 60 per cent of the increased health cost. About 30 per cent is attributable to increased demand per capita, and 10 per cent is due to population growth. Improved technology, manifest by intensity of care, is a major factor in cost.

\$125 BILLION IS THE COST OF HEALTH-DAMAGING LIFE PATTERNS

It is estimated that illnesses and accidents caused by damaging life patterns account for more than half of the \$247 billion total health care expenditures in this country in 1980. In his address to the Interim Meeting in December AMA President, David T. Cloud, MD presented the "shocking facts":

SMOKING: Smoking accounts for 350,000 premature deaths each year, 80 per cent of chronic lung disease, 83 per cent of lung cancer in males, 43 per cent of lung cancer in females, 77 million excess work loss days per year (20 per cent of all work loss days), and 150 million excess sick bed days per year. Smoking is a cause of arteriosclerotic heart disease, chronic pulmonary disease, respiratory tract cancer, cancer of the bladder, kidneys, pancreas, and peptic ulcer. Smoking in pregnancy retards fetal growth, increases spontaneous abortions and neonatal deaths, and leads to deficiencies of growth and development of the child. The life expectancy of a young man between thirty and thirty-five years old, who smokes two packs of cigarettes a day, is shortened by nine years.

ALCOHOLISM: In 1977 there were 464,000 cases of alcoholism in short-stay hospitals alone, over 106,000 cases of cirrhosis of the liver, and 18,000 cases of alcoholic psychosis. The average hospital stay for a case of primary alcoholism is eight days, and this accounts for more than three million inpatient bed days per year.

TRAFFIC ACCIDENTS: There were 53,000 vehicular accident deaths last year, and two million disabling injuries. Half of the deaths and one-fourth of the injuries were caused by drinking.

OTHER ACCIDENTS: Falls are second only to vehicular accidents in accidental deaths, and cause 60 per cent of the total injuries. Half of the fatal falls are caused by drinking, half of the deaths from fire, half of the drownings, and half of the suicides.

TOO FEW, NOT TOO MANY, CT SCANNERS

Participants in a recent NIH consensus-development conference in Bethesda, Maryland concluded that "CT is a safe, accurate, and powerful tool" for primary diagnosis of such brain problems as tumor, hemorrhage, major head trauma, and infections. The panel's final report states that the costs of increased diagnostic use of CT scans "have been more than offset by a reduction in costs resulting from discontinued procedures and the elimination of equipment to carry them out." The conference chairman declared, "The problem is there are too few CT scanners in the US, not too many."

RUBELLA SEROLOGY TESTING

Plans to discontinue provision of rubella serology testing free of charge by the Rhode Island Department of Health (announced in this Newsletter, October 1981) have been revised. Testing will be maintained free of charge for the four populations now served: hospital employees, entering college females, premarital women, and prenatal women.

EDUCATIONAL AND SCIENTIFIC BOARD

The Rhode Island Medical Society Educational and Scientific Board has approved 2-year reaccreditation of continuing medical education programs at: Rhode Island Medical Center General Hospital, Roger Williams General Hospital, Rhode Island Hospital, John E. Fogarty Memorial Hospital, Women and Infants Hospital, Woonsocket Hospital, and South County Hospital.

RIMS MEMBERSHIP COUNT

	September 1981	October 1981
Total RIMS members	1420	1423*
Total AMA members	759	759
New RIMS members		6

*Count shows 6 new members minus 3 who are deceased.

New members: Carol Crowley, MD; Jack B. Franaszek, MD; Oscar Gliebeman, MD; Mark D. Jacobs, MD; Mary Preston, MD (resident); Richard J. Ryter, MD.

"HEALTH CARE COSTS: WHAT CAN YOU DO?" is a new brochure published by the Voluntary Effort to Contain Health Care Costs. It suggests a number of steps consumers can take to hold down costs, such as attempting to stay out of the hospital when outpatient or home care alternatives are possible, following good health habits, asking questions about their care and their bills, and determining what their health insurance covers. Single copies of the brochure may be obtained by sending a self-addressed, stamped #10 envelope to Voluntary Effort, 840 N. Lake Shore Drive, Chicago, IL 60611.

Continuing Medical Education

WINTER-SPRING 1982 Semi-Annual Calendar

January

- 8 "NON INVASIVE VASCULAR STUDIES," George Cooper MD; Richard Perry MD; Daniel Reardon MD; Michael Yablonski MD; Kent Cty Mem Hosp
- 11 "REVIEW OF THE ACTIVITIES OF THE SOUTHEASTERN NEW ENGLAND LONG TERM CARE GERONTOLOGY CENTER," Donald Spence PhD; RIMC Gen Hosp
- 11 "PRE, INTRA AND POST-OPERATIVE CARDIOPULMONARY EVALUATION AND TREATMENT," Michael Rie MD; Fogarty Mem Hosp
- 15 "NEW DEVELOPMENTS IN BREAST CANCER" (medical grand rounds), Marc Lippman MD; Miriam Hosp
- 15 "ARTERIOGRAPHY IN PERIPHERAL AND CAROTID VASCULAR DISEASE AND COMPARED NON INVASIVE STUDIES ROLE," Vedat Erbug MD; Bruce A. Raymond MD; Kent Cty Mem Hosp
- 18 "BLOOD COMPONENT THERAPY," Ronald Yankee MD; Fogarty Mem Hosp
- 18 "DIAGNOSIS AND TREATMENT OF NOSOCOMIAL PNEUMONIAS," Anthony Medeiros MD; RIMC Gen Hosp
- 19 "IMMUNOPROLIFERATIVE DISEASE" (combined medical grand rounds), George M. Bernier Jr MD; RWGH
- 20 "DEMENTIA REVISITED: EARLY RECOGNITION AND TREATABLE FORMS," Irving Beck MD; Jacques Mioni MD; Srecko Pogacar MD; Lawrence Jenkyn MD; RIMC Gen Hosp
- 21 "SPONTANEOUSLY RESOLVING HYPERTHYROIDISM--A NEW CONCEPT" (medical grand rounds), Gilbert H. Daniels MD; Miriam Hosp
- 22 "PERIPHERAL VASCULAR DISEASE -- MEDICAL/SURGICAL ASPECTS -- INDICATIONS MEDICAL/SURGICAL MANAGEMENT," Michael J. Faella MD; Louis N. Pernokas MD; Kent Cty Mem Hosp

Listings above are abbreviated and include only activity titles, principal speakers, and sponsors. Sponsor organizations should be contacted to confirm advance dates, and for the times and locations of the program. The calendar is open for listings of significant CME activities throughout Rhode Island.

- 22 "RECENT ADVANCES IN DIAGNOSIS AND MANAGEMENT OF INFECTION IN THE NEWBORN INFANT" (combined pediatric teaching rounds), Jerome O. Klein MD; RWGH
 - 25 "OVERVIEW OF NURSING CARE FACILITIES IN RI," Adeline Frederick, President, RI Association of Facilities for the Aging; Alfred Santos, Executive Director, RI Health Care Association; RIMC Gen Hosp
 - 26 "SKIN CANCERS" (combined medical grand rounds), Joseph C. Alper MD; RWGH
 - 27 "TEACHING SEMINAR IN MEDICAL ONCOLOGY," Louis Leone MD; RIH
 - 28 "CLINICAL NEUROPATHOLOGICAL CONFERENCE," Srecko Pogacar MD; Thomas Sabin MD; RIMC Gen Hosp
 - 29 "USE OF THE INTRA AORTIC BALLOON INCLUDING PERCUTANEOUS INSERTIONS," George N. Cooper MD; Richard Perry MD; Kenneth H. Salzsieder MD; Kent Cty Mem Hosp
-

February

- 3 "JOHN F. KENNEY DAY," Arthur A. Sasahara MD; Memorial Hosp
- 4 "FEVER OF UNKNOWN ORIGIN" (medical grand rounds), Sheldon M. Wolff MD; Miriam Hosp
- 5 "THE BLEEDING PATIENT -- DIAGNOSIS AND MANAGEMENT INCLUDING PLATELET, COAGULATION & OTHER DISORDERS," Bishnu J. Rauth MD; Kent Cty Mem Hosp
- 8 "IMPOTENCE, MEDICAL-SURGICAL MANAGEMENT," Naeem Siddiqi MD; Fogarty Mem Hosp
- 8 "DIFFERENTIAL DIAGNOSIS OF OSTEOPENIA IN THE ELDERLY," Roy K. Aaron MD; RIMC Gen Hosp
- 10 "EPIDEMIOLOGY OF CEREBROVASCULAR DISEASE," Stanley Aronson MD; Naval Regional Med Ctr
- 10 "THE ANNUAL F.A. SIMEONE ORATION: ANATOMY OF A RECOVERY," Frank Newman PhD; Miriam Hosp
- 12 "RHEUMATOID ARTHRITIS," Virginia S. Parker MD; Kent Cty Mem Hosp
- 16 "HYPERTENSION AND THE RAA SYSTEM," Jeffrey Kluger MD; Woonsocket Hosp
- 16 "COMBINED MEDICAL GRAND ROUNDS," Lawrence E. Shulman MD PhD; RWGH
- 18 "THE APPLICATION OF BEHAVIORIAL APPROACHES TO PATIENTS

- WITH CARDIOVASCULAR DISORDERS" (special medicine/psychiatry grand rounds), Alex Adsett MD; Miriam Hosp
- 19 "APPROACH TO INTERSEX" (combined pediatric teaching rounds), Patricia K. Donahoe MD; RWGH
- 19 "HEPATIC ENCEPHALOPATHY," Antoine Hadamard MD; Kent Cty Mem Hosp
- 22 "HYPERCALCEMIA IN THE ELDERLY," Joseph Tucci MD; RIMC Gen Hosp
- 24 "TEACHING SEMINAR IN PSYCHIATRY," Richard Goldberg MD; Beverly A. Myers MD; Richard Pearson MD; Andrew E. Slaby MD; RIH
- 24 "THE ANNUAL TOPICS IN HEMATOLOGY SEMINAR," Kenneth Ault MD; Arvin S. Glicksman MD; Robert A. Kyle MD; Barry Miller BSc MB ChB; RIH
- 25 "PROBLEMS IN PSYCHOPHARMACOLOGY," James Dugas, PharmD; Butler Hosp
-

March

- 2 "IMMUNODIAGNOSIS AND IMMUNOTHERAPY OF HUMAN MALIGNANCIES" (combined medical grand rounds), Robert Bast MD; RWGH
- 4 "HYPERPARATHYROIDISM AND HYPERCALCEMIA: NEWER ISSUES" (medical grand rounds), John Potts MD; Miriam Hosp
- 5 "ALCOHOLISM -- EXTENT OF THE PROBLEM," Bruno Franek MD; Kent Cty Mem Hosp
- 8 "NEW IDEAS IN GASTRIC EMPTYING," Herbert Rakatansky MD; Fogarty Mem Hosp
- 9 "PSYCHOGERIATRIC CASE PRESENTATION," Jacques Mioni MD; Erlinda Vorasingha MD; RIMC Gen Hosp
- 10 "DISORDERS OF ELECTROLYTE AND/OR ACID BASE EQUILIBRIUM," Serafino Garella MD; Naval Regional Med Ctr
- 10 "OBLIGATION: TO WHOM DOES THE PHYSICIAN OWE? WHAT AND TO WHY?" (annual law and medicine oration), Edward Beiser PhD JD; Miriam Hosp
- 11 "DERMATOLOGY CLINICAL CONFERENCE -- NAIL DISEASES: DIAGNOSIS AND TREATMENT -- NAIL SURGERY," Richard K. Scher MD; RWGH
- 12 "SEPTIC SHOCK," Pierre Forgacs MD; Kent Cty Mem Hosp
- 15 "CARDIO-RENAL CONSIDERATION IN HYPERTENSION," Ralph Cutler MD; Fogarty Mem Hosp

March (continued)

- 15 "NEW CONCEPTS IN THE CLASSIFICATION OF LUNG CANCER,"
Karl Teplietz MD; RIMC Gen Hosp
- 18 "CANCER: CRAB OR CHIMERA? THE CLINICAL IMPLICATIONS
OF CANCER CELL HETEROGENEITY" (medical grand rounds),
Paul Calabresi MD; Miriam Hosp
- 19 "THE SPLEEN AND SPLENECTOMY" (combined pediatric
teaching rounds), Howard A. Pearson MD; RWGH
- 19 "ANTIMICROBIAL PROPHYLAXIS #1: COLO-RECTAL SURGERY,
ELECTIVE; BILIARY SURGERY; VASCULAR SURGERY," Domenic
DiDonato MD; Louis N. Pernokas MD; Daniel Reardon MD;
Kent Cty Mem Hosp
- 24 "RATIONALE AND RESULTS OF THE USE OF ALL CALCIUM
ANTAGONISTS IN TREATMENT OF CORONARY ARTERY DISEASE,"
Stephen Epstein MD; RIH
- 25 "CLINICAL PATHOLOGICAL CASE" (neurological case
presentation), William McEntee MD; RIMC Gen Hosp
- 26 "ANTIMICROBIAL PROPHYLAXIS #2: PROSTATECTOMY: TRANS-
URETHRAL, RETROSPECTIVE; TOTAL HIP REPLACEMENT;
VAGINAL HYSTERECTOMY -- CAESAREAN SECTION; SUMMATION,
ANTIMICROBIAL PROPHYLAXIS," William F. Garrahan MD;
David A. Lowe MD; J. Douglas Nisbet MD; William J.
O'Rourke MD; Kent Cty Mem Hosp
- 26 "CURRENT RESEARCH ON MULTIPLE SCLEROSIS" (medical
grand rounds), Byron H. Waksman MD; Miriam Hosp
- 30 "HEALTH PROBLEMS AMONG RI INDOCHINESE REFUGEES"
(combined medical grand rounds), Jason Weisfeld MD;
RWGH
- 31 "TEACHING SEMINAR IN GENERAL INTERNAL MEDICINE,"
D.H. Novak MD; David Reuben MD; Thomas J. Wachtel
MD; Steven A. Wartman MD; RIH
-

April

- 1 "CURRENT APPROACHES TO THE MANAGEMENT OF CONGESTIVE
HEART FAILURE" (medical grand rounds), Thomas W.
Smith MD; Miriam Hosp
- 2 "SEASONAL & PERENNIAL ALLERGIES: RHINITIS -- COMPLICA-
TIONS & TREATMENT," H. Friedman MD; Kent Cty Mem Hosp
- 6 "TWO-DIMENSIONAL ECHOCARDIOGRAPHY--ITS VALUE FOR PHY-
SICIANS" (combined medical grand rounds), Alfred F.
Parisi MD; RWGH
- 7 "POTENTIAL RADIOCHEMICAL DAMAGE IN BIOLOGICAL SYSTEMS

- THE ANNUAL ISSAC GERBER ORATION," Belton A. Burrows MD; Miriam Hosp
- 12 "CLINICAL ASPECTS OF CURRENT PSYCHO-PHARMACOLOGY," Ando Suvari MD; RIMC Gen Hosp
- 13 "PSYCHOGERIATRIC CASE PRESENTATION AND DISCUSSION," Alexe Andronic MD; Ando Suvari MD; RIMC Gen Hosp
- 13 "NUTRITIONAL ANEMIAS" (medical grand rounds), Victor Herbert MD; Miriam Hosp
- 14 "HEART DISEASE PREVENTION," Richard A. Carleton MD; Naval Regional Med Ctr
- 14 "TEACHING SEMINAR IN AUTOPSY PATHOLOGY," George F. Meissner MD; RIH
- 15 "THE ARTIFICIAL METABOLIC PROBLEMS WITH LONG TERM HOME PARENTERAL NUTRITION" (medical grand rounds), Lyn J. Howard MBBS MRCP; Miriam Hosp
- 16 "PEDIATRIC GENETICS -- 1982" (combined pediatric teaching rounds), Park Gerald MD; RWGH
- 16 "ISCHEMIC HEART DISEASE," R. Capone MD; Kent Cty Mem Hosp
- 19 "INFECTIOUS DISEASES: A CURRENT UPDATE ON ANTIBIOTIC THERAPY," Lawrence D. Mullany MD; Woonsocket Hosp
- 21 "THE INSULIN PUMP IN DIABETES: A CURRENT STATUS REPORT" (medical grand rounds); Miriam Hosp
- 22 "WORKSHOPS IN PSYCHIATRY: BHSA & APA-RIDB -- CHOICE OF TREATMENT," Lowell Rubin MD; Butler Hosp
- 22 "CLINICAL PATHOLOGICAL CONFERENCE," Irving Beck MD; RIMC Gen Hosp
- 23 "NEW APPROACHES TO BRONCHOSPASTIC DISEASES THERAPY," Neil Schachter MD; Kent Cty Mem Hosp
- 26 "MANAGEMENT OF DIABETES," Joseph Tucci MD; Fogarty Mem Hosp
- 26 "PSYCHIATRIC PROBLEMS OF THE ELDERLY IN COMMUNITY HOSPITALS," Andrew E. Slaby MD PhD MPH; RIMC Gen Hosp
- 28 "TEACHING SEMINAR IN PLASTIC SURGERY," Armand D. Versaci MD; RIH
- 30 "AS IT HAPPENED," Abdalla Abadier MD; Joseph Hansagi MD; Gillian Newstead MD; Hossein A. Shushtari MD; Jerome Walsh MD; Kent Cty Mem Hosp

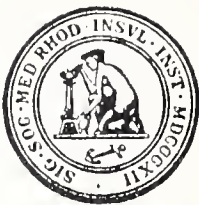
May

- 4 "IMMUNOGLOBULINS AND BLOOD COMPONENT THERAPY," Salvatore Allegra MD; St Joseph Hosp
 - 6 "GRAVES' DISEASE/THYROID NODULE PROBLEMS" (medical grand rounds), David H. Solomon MD; Miriam Hosp
 - 10 "CURRENT CONCEPTS IN PATHOGENESIS AND MANAGEMENT OF PAIN," Syed Sayeed MD; Fogarty Mem Hosp
 - 12 "ADOLESCENT MEDICINE," Louis Hochheiser MD; Naval Regional Med Ctr
 - 20 "BACTERIAL DIARRHEAS" (medical grand rounds), Sherwood L. Gorbach MD; Miriam Hosp
 - 21 "THE ROLE OF THE PHYSICIAN IN PATIENT COMPLIANCE" (combined pediatric teaching rounds), R. James McKay MD; RWGH
 - 24 "GYNECOLOGIC PROBLEMS IN THE ELDERLY," David H. Nichols MD; RIMC Gen Hosp
 - 26 "TEACHING SEMINAR IN INFECTIOUS DISEASES," Georges Peter MD; RIH
-

June

- 1 "OFFICE MANAGEMENT OF COMMON ORTHOPEDIC PROBLEMS," A. Louis Marioenzi MD; St Joseph Hosp
- 2 "FIFTH ANNUAL ALDEN H. BLACKMAN MEMORIAL LECTURE -- LACTOSE INTOLERANCE -- A DEVELOPMENTAL APPROACH," Emanuel Lebenthal MD; RWGH
- 7 "MANAGEMENT OF SEXUAL PROBLEMS IN THE ELDERLY," Jacques Susset MD; RIMC Gen Hosp
- 9 "SEMINAR ON PARKINSON'S DISEASE," Roger Duvoisin MD; W&I Hosp
- 10 "THE DIAGNOSTIC AND PROGNOSTIC SIGNIFICANCE OF ANTI-NUCLEAR ANTIBODIES -- DIRECT CUTANEOUS IMMUNOFLUORESCENCE INCLUDING THE 'LUPUS BAND TEST'" (dermatology clinical conference), Thomas K. Burnham MD; RWGH
- 16 "EXERCISE METABOLISM AND DIABETES" (medical grand rounds), Philip Felig MD; Miriam Hosp
- 30 "TEACHING SEMINAR IN DERMATOLOGY," Louis A. Fragola MD; RIH

Health Planning May Be Dangerous to Your Health



Proposals to reduce the number of hospital and nursing home beds are totally unacceptable to those of us who are truly interested in our patients. Health planners state that "A built bed is a filled bed." They imply that the number of beds should be controlled; and that doctors are self-interested and fill beds for their own advantage. This concept in turn leads to recommendations to limit the number of hospital and nursing home beds. For example, it has been stated that "By 1985 the use of short-stay nonfederal hospital beds in Rhode Island should be reduced to approximately 1,000 patient days per 1,000 population age adjusted," and that "By 1985 the patient day use rate for nursing and personal care homes in Rhode Island should not exceed 26 days per person aged 65 and over per year." (*Rhode Island Health Plan*, May 1980, 7-92, 7-120). It is clear, however, that such recommendations are fallacious.

It is in fact true that in Rhode Island the built beds are filled. It is unfortunate that our PATIENTS must wait for elective surgery; that our PATIENTS must wait up to 48 hours in holding units of hospital emergency rooms; and that our PATIENTS are unable to find nursing beds, which in turn creates a backlog in hospitals. This backup of potential nursing home patients in the general hospitals is a statewide problem, and contributes substantially to the high occupancy rates.

It is generally conceded that a hospital's occupancy level should not exceed 85 per cent. A somewhat lower level may be desirable; a higher level may infringe upon citizens' right to good health care and may be an actual danger to our community. Yet, as shown in Table 1, during the third quarter of the current year — April, May, and June 1981 — occupancy rates were significantly above 85 per cent in eight of the state's 16 short-term hospitals. During the same period three of the state's five long-term care hospitals had occupancy rates over 85 per cent.

Indeed, the facts have changed little for several quarters. As demonstrated in Table 2, at Rhode Island Hospital during the past two years the occupancy rate level has never been as low as 85 per cent.



Charles E. Millard, MD

Table 1. Bed occupancy rates in hospitals in Rhode Island during April, May, June 1981.

	Per cent Occupancy
Short-Term Hospital	
St. Joseph Hospital, Our Lady of Providence Unit	93.9
The Miriam Hospital	93.6
Rhode Island Hospital	91.3
Kent County Memorial Hospital	91.2
John E. Fogarty Memorial Hospital	90.3
Memorial Hospital	89.2
Cranston General Hospital	88.5
Roger Williams General Hospital	86.6
Woonsocket Hospital	82.2
Notre Dame Hospital	82.1
Westerly Hospital	78.7
Veterans Administration Medical Center	76.4
South County Hospital	75.0
Newport Hospital	73.3
Women & Infants Hospital	72.0
Long-Term Hospital	
Bradley Hospital	106.7
Butler Hospital	98.9
Rhode Island Medical Center General Hospital	97.7
Rhode Island Medical Center IMH	90.2
Dr. U. E. Zambarano Memorial Hospital	77.9
All Hospitals	87.8

Data Source: Health Planning Council, Inc., Providence, Rhode Island

Table 2. Bed occupancy rates at Rhode Island Hospital, 4th quarter 1979 through 3rd quarter 1981.

Quarter	Year	Per cent Occupancy
4th	1979	89.8
1st	1980	85.7
2nd	1980	91.7
3rd	1980	89.8
4th	1980	89.8
1st	1981	90.1
2nd	1981	92.4
3rd	1981	91.3

Data Source: Health Planning Council, Inc., Providence, Rhode Island

High occupancy levels in many instances may result in dangerously long waits for patients seeking elective surgery. Elective surgery is conceived by many people, including the health planners, as procedures which can be performed without risk at any time in the future. In reality, however, delaying certain elective procedures may profoundly affect the morbidity or even the mortality in some cases. Coronary bypass surgery to treat angina pectoris not responding to medical therapy is an elective operation. Since no one knows when a coronary thrombosis may occur, postponement of the bypass can result in massive myocardial infarction causing a patient's death. The postponement of a herniorrhaphy, cholecystectomy, and other operations also may create dangers.

During the first ten months of 1981 a total of 571 patients were kept for varying lengths of stay in the holding unit of the emergency room of Rhode Island Hospital. When a holding unit becomes full, ambulances are diverted from the hospital to other locations where proper care can be provided. This year ambulances have been diverted from Rhode Island Hospital for all or part of a day as many as 13 times in a single month. On two occasions ambulances could not be diverted because no other hospital in the area could accept patients. In view of this situation, recommendations by health planners to reduce the number of hospital beds or to place a moratorium on the building of nursing home beds certainly constitutes a danger to the health of our patients.

The lack of sufficient number of hospital beds is a health hazard, and a shortage of nursing beds aggravates the problem. According to data from Rhode Island Professional Standards Review Organization, Inc. (RIPSRO) in 1980 a total of 1,305 Rhode Island patients were held in Rhode Island hospitals a total of 14,971 days because beds were not available. Recommendations by health planners to limit the number of nursing home beds is detrimental to the well-being of our patients, victimized by triage as the emergency room holding unit fills while patients who should be in nursing homes are occupying the hospital beds.

The backup of patients in our hospitals is very expensive. In 1980, when the average per diem hospital cost was \$310, the total cost of 14,971 in hospital "administrative days" was \$4,641,010. And during the first six months of 1981 the total cost of 6,637 administrative days at an average per diem cost of \$342 was \$2,269,854.

Agencies that plan our health system seek to contain costs, but at the same time waste funds on patients in hospitals who should be in less expensive facilities. Now is the time to stop looking for a cureall. There is no time for leisurely projections for 1985, when serious problems confront us today. Our only salvation is to address directly and honestly those problems which have an immediate and obvious impact on the justification for the system's existence — our PATIENTS.

Perhaps all of those involved in health planning should begin by signing a statement to the effect that, "The PATIENT is my first concern." There is only one reason for the existence of the health system — the welfare of our PATIENTS. How long will the people stand idly by while planners deny reality and proclaim, contrary to the fact, that there is no shortage of beds but only inappropriate utilization, which is a euphemism for the same thing. The figures unequivocally demonstrate that we have a serious problem which is a threat to our PATIENTS' well-being. To say simply that there are beds "on line" and that we shall have adequate beds in 1985 is inexcusable and unrealistic. Any delay in attempting to improve the present situation will be proof that health planning is dangerous to health. We must remember that quality and cheap are at the opposite ends of the scale.

Nursing Home Bed Information System

The recent establishment of a nursing home bed clearing house in Rhode Island is a worthwhile project. A shortage of nursing home beds has resulted in a backing up of eligible patients in the state's acute hospitals, and indeed in the state's own long-term care facilities. Canvassing the area's 107 nursing homes for available beds can be a taxing, frustrating, and an often unsuccessful task for the hospitals' burdened social workers.

The clearing house has been sponsored by seven interested organizations: the Hospital Association of Rhode Island, the Rhode Island Medical Society, the Rhode Island Professional Standards Review Organization, the State Department of Social and Rehabilitative Services, and the State Department of Health. Ninety of the state's 107 nursing homes are participating. Blue Cross of Rhode Island has undertaken to operate the program and will provide a staff person at its own expense to carry out the functions.

Blue Cross will call each of the nursing homes daily and will keep a running log of beds available to the state's hospitals and the kind of patients that can be handled. The center will inform a designated individual within each hospital as to nursing homes with available beds and level of care and sex of patients who can be accepted; physicians may also make inquiries to the bed information system.

This is an experimental program to run six months. Whether it will reduce the backlog of hard-to-place cases and ease the burden of hospital social workers is difficult to predict. It is nevertheless important to try out any reasonable and in this case simple plan to move patients out of expensive acute hospital beds.

We shall watch this innovative program with interest.

Seebert J. Goldowsky, MD

Medical Aspects of Sports: A Continuing Challenge

When the Rhode Island Medical Society some sixteen years ago named a committee to consider medical aspects of the prevention and the treatment of sports injuries, the decision to have such a committee put the Society in the forefront of medical organizations across the nation.

Today there are more injuries associated with recreational play than ever before. According to the National Safety Council, football, basketball, baseball and other competitive sports at schools and in sandlot play account for 300,000 to 400,000 injuries annually. With the physical fitness contagion that has swept the country in the past few years and the increase of sports competition for women, it is likely that this number will continue to grow in the years ahead.

Responding to the ongoing problems and challenges of sports medicine, the Society's commit-

tee this past summer co-sponsored its 16th Postgraduate Conference on Medical Aspects of Sports held at the University of Rhode Island in Kingston, Rhode Island. A panel of coaches of women's athletic teams reported on problems met by female athletes; Doctor Lyle Micheli, a prominent physician from the Childrens' Medical Center in Boston, gave an assessment and sound advice on the prevention of sports injuries in children; and there were also presentations on medical injuries from dancing and gymnastics. Eight Rhode Island physicians, five of whom are committee members, discussed injuries to the knees, the fingers and hands, the joints, and the ankles, and the use of arthrography and arthroscopy in joint problems.

As more and more people pursue recreational sports, injuries associated with recreational play

are no longer a medical problem mainly for orthopaedic specialists; rather they engage the attention of general surgeons, pediatricians, physicians engaged primarily in family practice, and others. The Conference attracted 125 attendees from eleven states including Pennsylvania, South Carolina, Michigan, New York, New Jersey, and Kansas, and from one foreign country. Our overseas visitor was a physician from New Zealand. Seventy doctors of medicine were in attendance, two osteopathic physicians, four chiropractors, ten trainers, three physicians' assistants, six physical therapists, two nurses, and twenty-eight coaches and athletic directors, mainly from the Rhode Island area.

Smoking in the Work Place

Smoking in public such as restaurants, public buildings, theater lobbies, elevators, and supermarkets is indeed pernicious and detrimental to health. It should be outlawed, and progress has been made in this endeavor. Little attention, however, is given to another much larger related health problem — smoking in the work place.

The air in many offices and work areas is constantly blue and malodorous from cigarette smoke. On the average two non-smokers are exposed to this pernicious smoke for every smoker whose rights are zealously protected and for eight hours a day! Polluted air is polluted air. To argue that this has no effect on the normal lung is either

With the kind assistance of John E. Farrell, ScD, the Rhode Island Medical Society's former executive secretary; the gracious cooperation of the administrative and athletic staff of the University of Rhode Island; and grants from the Rhode Island Scholastic Injury Fund, the Stride Foundation, the Rhode Island Medical Society, and Merck Sharp & Dohme, the annual Postgraduate Conference sponsored by the Medical Aspects of Sports Committee is a valuable contribution to the field of sports medicine.

A. A. Savastano, MD

Chairman

Medical Aspects of Sports Committee

ingenuous or downright self-serving. It is particularly harmful and harrassing for those with respiratory problems. Employers who agree that they must permit smokers to indulge themselves in order to encourage production are not truly interested in the health and comfort of the majority of their employees.

The time has arrived for legislatures, health departments, OSHA, and other pertinent bodies to institute an outright ban on smoking in the work place.

Seebert J. Goldowsky, MD

It Is We Who Must Change

To the Editor:

"We must change, in order for our way of life to remain the same" is an approximate translation of words of counsel written to the European nobles at the turn of the century, at a time when great social change was taking place everywhere around them. The nobles failed to comprehend their meaning and to reckon with the time.

Today, the American establishment is being shaken, and the medical profession is not being spared. The physician, who has occupied a position at the very summit of the social order and has been the almost unquestioned, authority-dogmatic pragmatist of the medical sciences, is now being challenged by soothsayer, sage, and an assortment of journalistic healers. Yet, doctors have been content for the most part to remain aloof from political affairs. The medical profession, as represented by medical societies, has favored conservatism and maintenance of the status quo . . . as did the nobles.

The time has come to consider a course of action for change in response to the troubled times. We must shore up areas within our society seriously in need of improvement, particularly those which involve outreach to the public:

1. We should develop a Rhode Island Medical Society MD speaker program in which members of the Society would participate in informal question and answer sessions at meetings of senior citizens, fraternal associations, and other organizations.

2. Health related charities should be able to call upon the members of the Rhode Island Medical Society for guidance, help, consultation, and even a few hours of telephone service for their drives and telethons.

3. We must begin to oversee and improve blood pressure screening programs, develop other screening programs, and reestablish the diabetes detection program; and we must make these better known, where available, to involved organizations and to the public.

4. We must improve our influence upon the local press to present full and complete unbiased views of medical and social problems. A biweekly or monthly television panel program of MDs discussing timely and current medical problems would be a valuable forum for both the profession and the community.

5. We must take the lead in providing medical care to the indigent and to the elderly. We can not depend on the present cumbersome, heavy-handed bureaucracies to do our job.

6. We must have full-time representation at the State House during legislative sessions. There is no profession in America which has neglected political life as has medicine.

7. We must give greater support to those legislators who have demonstrated a practical knowledge of public and medical affairs and oppose those who merely grandstand for enough votes to be re-elected. We also must be willing in some instances to run candidates for office. The state of Illinois with an MD governor has been able to obtain equitable legislation on public and medical issues.

My message is very simple. It is we who must change. The practice and policies of medicine are seriously in need of updating to meet the requirements and demands of the times.

Frank M. D'Alessandro, MD

If you're disabled, what happens to your earning power?

Think how an unexpected accident or sickness could halt your income at any moment and you'll realize how important Disability Income Insurance can be. Now . . . by applying for this policy, you can assure yourself of steady, continuing income . . . benefits that go to work for you when you're disabled.

This policy is
Endorsed
by:
RHODE ISLAND
MEDICAL SOCIETY

As a member of the Rhode Island Medical Society, you'll get this coverage at a cost less than an individual policy.

For specific information on costs and coverage, write or phone the administrators.

Administered by
 **LESTER L. BURDICK, INC.**
Loyalty Group Insurance

10 POST OFFICE SQUARE, BOSTON, MA 02109

(617) 426-0020

Local Representative: **JAMES M. FIGARA** (401) 434-7091

Underwritten by: **COMMERCIAL INSURANCE COMPANY**, 100 Wood Avenue South, Iselin, New Jersey 08830 • (201) 321-3800

RADIOGRAPHIC CASE OF THE MONTH

Michael J. Ryvicker, MD

Allan M. Deutsch, MD

Howard R. Cohen, MD

Sanford L. Schatz, MD

The Miriam Hospital

Providence, Rhode Island



History:

A 98-year-old female, resident of a mental institute, with bilateral above knee amputation. Admitted for severe abdominal distention of unknown length of time. Physical examination revealed a markedly distended tympanitic abdomen tender to palpation.

For discussion turn to next page.

Radiographic Findings:

A supine view of the abdomen reveals marked distention of the bowel, most likely the large intestine. The distended loops appear to "point" to the left lower quadrant, and the gas contour appears to taper (white arrow) suggesting a twisted loop. The barium enema outlines a concentrically narrowed sigmoid colon thought to indicate a twisted loop.

Hospital Course:

Sigmoidoscope was performed up to 12 cm, revealing a markedly hemorrhagic and edematous mucosa. As the sigmoidoscope was advanced, large amounts of fluid and air were rapidly passed. After passage of a large rectal tube into the distal loop of the sigmoid volvulus, the abdominal distention was felt to decrease and a subsequent abdominal radiograph revealed decompression of the dilated colon.

Differential Diagnosis (of a markedly distended loop of bowel):

1. Sigmoid volvulus.
2. Cecal volvulus.
3. Gastric outlet obstruction or gastric volvulus.
4. Volvulus of the transverse colon.

Diagnosis:

Volvulus of the sigmoid colon.

Discussion:

When a patient presents with a history of intermittent, cramping lower abdominal pain, increasing abdominal distention, obstipation and lack of flatus, mechanical obstruction due to volvulus of the colon must be strongly considered. Nausea, vomiting and dehydration will develop in several hours. Volvulus of the colon causes approximately 4 per cent of bowel obstructions, and approximately 18 per cent of obstructions of the colon.¹ Since volvulus of the colon is a rotation of a segment of the bowel about its mesentery, it can only occur in a mobile segment which has its fixed ends fairly close. The lumen will become either partially or completely obstructed and the vascu-

lar supply may become impaired, either due to the twisted mesentery or the distention. Gangrene of the involved segment may ensue if the volvulus has been reduced in the presence of a compromised circulation.

The incidence of sigmoid volvulus and cecal volvulus are approximately equal, 45 per cent and 46 per cent respectively. Volvulus of the transverse colon accounts for the remainder, 9 per cent.¹ The etiologies of sigmoid and cecal volvulus differ: Sigmoid volvulus occurs in patients with a history of chronic constipation which has resulted in lengthening of the distended sigmoid. It is most often encountered in elderly, sedentary patients and in patients with severe neurologic and psychiatric diseases.² Cecal volvulus, in contrast, is usually related to congenital factors, such as a hypermobile cecum (having a mesentery) or a congenital malrotation.

The radiographic findings are those of a markedly distended viscus, folded upon itself, and twisted. The mucosal lines will radiate toward the site of the twist (right lower quadrant in the case of cecal volvulus and left lower quadrant in sigmoid volvulus). Air fluid levels are usually present in erect films. A "bird-beak," seen either on the plain film or barium enema, indicates the point of the twist.

While barium enema may be helpful in diagnosis and possibly in conservative management of sigmoid volvulus, it should not be performed in the presence of free intra-abdominal air or peritoneal signs or if gangrenous bowel is suspected. Sigmoidoscopy and the passage of a rectal tube is the treatment of choice in management of the acute episode of sigmoid volvulus.² The recurrence rate following conservative management alone varies from 62 to 90 per cent.^{1, 2} The treatment for cecal volvulus is surgical, since conservative measures are unable to untwist the loop.

References

- 1 Kerry RL, Lee F, Ransom HK: Roentgenologic examination in the diagnosis and treatment of colon volvulus. *Amer J Roentgenol* 113:343-348, 1971.
- 2 Schwartz SI, et al: *Principals of Surgery*. New York, McGraw-Hill, 1979, pp 1227-1229.

First Class First Aid

In
your
office

In
their
homes

Recommend

NEOSPORIN® Ointment

(POLYMYXIN B-BACITRACIN-NEOMYCIN)

- Broad-spectrum antibacterial
- Handy applicator tip

DESCRIPTION: Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically* (as an adjunct to systemic therapy when indicated), for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neo-



mycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Motrin[®] vs aspirin w/codeine..

(ibuprofen)



compare the analgesic effect

A Motrin 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients.

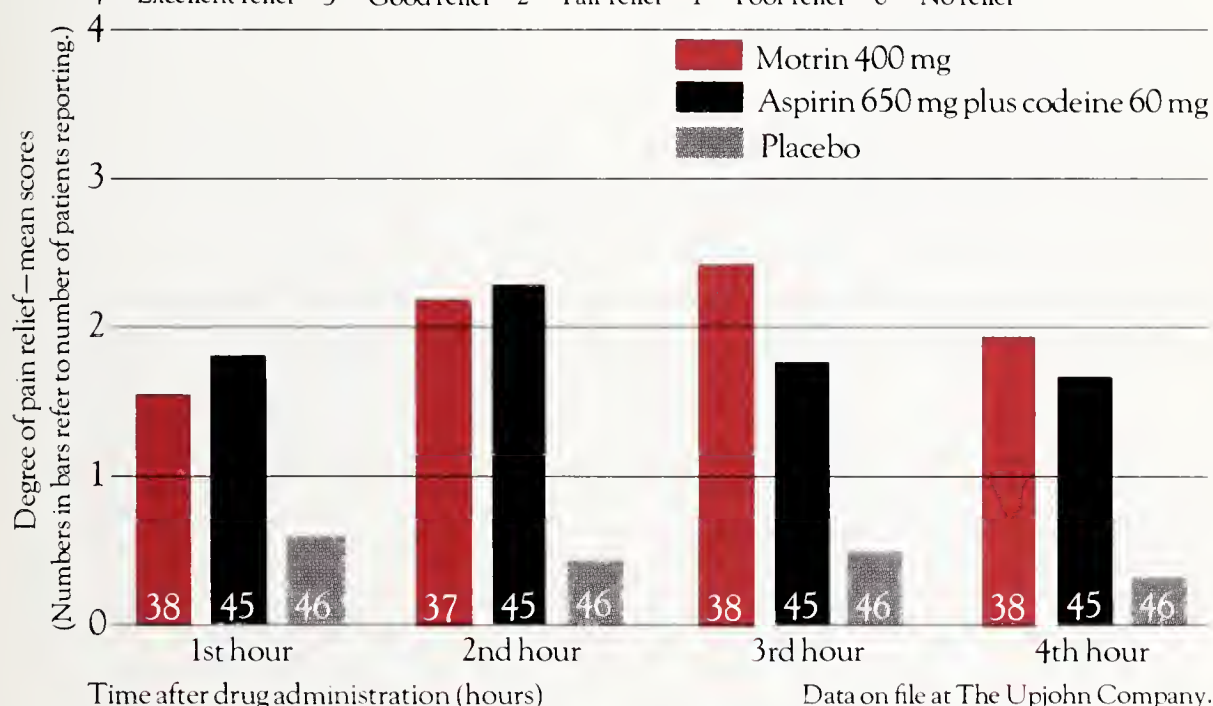
In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the Motrin and aspirin-with-codeine groups... with Motrin being significantly more effective ($p = 0.03$) at the three-hour interval.

Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief

Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



One tablet q4-6h prn

For relief of mild to moderate pain:

Motrin[®] 400mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming • Nonscheduled
- Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with Motrin is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin[®] (ibuprofen)

now proved an effective analgesic for mild to moderate pain

Motrin[®] Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin, use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels.

Coumarin: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain, heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

Upjohn

THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

MED B-4-S

MARCH 1981

It's time we took
arthritis seriously

It's a myth that arthritis is just the minor aches and pains of old age. It's a majorcrippler that attacks. Anybody. Anytime. 31 million Americans have it. There are almost a million new cases a year. And six out of ten are under 60. Symptoms can come and go for years. So if you don't know the warning signals, find out. If you'd like information that could help you—or you'd like to help us—write to the Arthritis Foundation, Box 19000, Atlanta, GA 30326.



Epidural Stimulation for Pain Control in the "Failed Disc" Syndrome

Success Is Possible in One-half of Cases If Carefully Selected

T. A. Leclercq, MD, FACS

Percutaneous electrical epidural stimulation is a modification of the original technique of posterior column stimulation described by N. Shealy¹ over which it has numerous advantages. Operating time for this non-traumatic procedure is brief. Insertion of epidural electrodes can be performed under local anesthesia allowing for patient cooperation and ideal placement of electrode tips. The main advantage lies in a trial period which can be prolonged in order to assess primary results of stimulation on pain. For this reason, only patients with a favorable response to the technique are considered for implantation. A useless operation, as well as general anesthesia, can be avoided in those patients who obtain no pain relief. Finally, this elimination of initial poor results significantly decreases the total cost of treatment, since the trial electrodes account for only one-fourth of the cost of the implanted system.

Operative Technique

Fluoroscopic control is utilized to identify the level of insertion, T-12, L-1 for lower thoracic

stimulation and C-7, T-1 for the cervical level. Following local anesthesia, a midline incision is made down to the spinous processes. Generous local anesthesia is mandatory to relieve the patient's anxiety and to obtain good relaxation and good cooperation during electrode insertion. A 14 gauge needle is then introduced toward the epidural space. Once the correct level is reached, negative pressure being present in the epidural space, correct localization can be ascertained by applying a drop of saline on top of the needle, which drop will be aspirated. Fluoroscopic control is then utilized to introduce the electrode at the desired level. When one is familiar with the procedure, it is relatively easy to guide the epidural electrode practically at will. The tip of the electrode must remain near the midline in order to avoid radicular stimulation, which is sometimes painful and often bothersome. Though it is important to use x-ray control to ascertain the correct placement of electrodes, discussion with the patient has given the most reliable electrode placement. For this reason it is important to use minimal or no sedation during the intervention. The procedure, however, must be done with an anesthesiologist standing by and an intravenous running in case medication has to be injected.

In this series we have used the system made by Medtronic, Inc. This system is built so that monopolar as well as bipolar stimulation can be applied. In this series, however, only bipolar stimulation has been used. Once the electrodes have reached the desired level, they can be anchored and brought out through a small incision 3 to 4

Toussaint A. Leclercq, MD, FACS, Medical Director, Pain Program of Southern New England, Providence, Rhode Island; neurosurgeon, Division of Neurosurgery, St. Joseph Hospital, Providence, Rhode Island.

inches from the midline. At that time x-rays in anterior/posterior as well as lateral positions should be taken to keep a permanent record of the level of implantation. This documentation can be used later in case of electrode displacement.

Epidural stimulation is begun once the patient returns to his or her bed. For the first few sessions, epidural stimulation is performed by the nurses. As the patient becomes familiar with the use of the transmitter, he usually takes over and applies the stimulation himself with supervision by the staff. Since the external stimulator is similar to the permanent one, this period is used for teaching and familiarizing the patient with all stimulation procedures. Since most of his questions have been answered, once imbedment is decided upon, the patient is ready to use the device. Though there are no strict rules, the trial period lasts usually between 4 and 6 days. A flow sheet at bedside is utilized hourly by the patient and nurses. It allows the surgeon readily to judge the results of stimulation. If no conclusion can be reached, it is occasionally necessary to send the patient home with externalized electrodes. This can be done relatively safely if good skin hygiene is maintained.

The implantation procedure is performed under general anesthesia, since this is more comfortable for the patient and does not require the patient's cooperation. The site of insertion of the receiver is connected by a subcutaneous tunnel with the point of emergence through the skin of the epidural electrodes. A subcutaneous pocket is created for the receiver, and the connections are secured. Because the procedure is brief in duration, ambulation and diet can be resumed the same evening. Stimulation is resumed as soon as skin healing permits.

Patient Selection

Though currently there are no strict criteria as to which patients will respond to epidural stimulation, a thorough understanding of the patient's pain problem is necessary. The patients in this series were evaluated by a multidisciplinary pain team prior to admission for surgery.

A Minnesota Multiphasic Personality Inventory is obtained routinely. The patient is then interviewed by a psychologist as well as a psychiatrist. Special attention is directed to secondary gains and a past history of drug dependency. Both factors have to be evaluated prior to initiating any form of treatment, since they are frequent causes of failure. A trial of non-invasive

pain relief modalities such as biofeedback, hypnosis, or acupuncture is desirable. A neurological evaluation is also obtained. The workup is reviewed as indicated from a neuroradiology and neurophysiology standpoint so that conditions treatable by more conventional neurosurgical techniques are ruled out. A decision to refer the patient for epidural stimulation is made at a panel meeting after the various members of the multidisciplinary team have voiced their opinions.

Results

Two criteria have been used to judge the results obtained on chronic pain. Table 1 shows the results according to the amount of pain medication required before and after surgery. No change in medication or a decrease in medication are considered failures. Total withdrawal from pain medication or a change from narcotic to non-narcotic treatment are considered satisfactory results. According to these criteria, nine satisfactory results have been obtained.

Table 2 presents the results obtained on physical activity. This criterion is particularly important since one of the main goals of the pain program is to return the patient to a physical activity level as nearly normal as possible. No patient was made worse following epidural stimulation. Ten have resumed normal physical activity. However, among these only three have been able to return to full-time employment.

Table 3 presents the results according to the length of follow-up after implantation. As can be seen, many failures are recorded after a rather short follow-up period. It is believed that these failures are related to electrode displacement, which will be discussed at a later time. Indeed, once an electrode has remained stable for a prolonged period of time, chances for significant displacement are not as great as with a newly implanted electrode, probably because the system is better anchored by postoperative adhesions. A trial of transcutaneous electrical stimulation as a test to predict results following implantation has not been conclusive. Indeed, among ten patients who had no relief with transcutaneous electrical stimulation, four had good results with epidural stimulation, whereas six were considered failures. These results have no statistical value. On the other hand, among seven patients who had a satisfactory response to transcutaneous stimulation, five responded well with an implanted device. It appears therefore that failure of transcutaneous electrical stimulation should not exclude a patient from a trial of epidu-

Table 1. Pain Medication Requirements of Twenty Patients Following Surgery

Unchanged	10
Diminished	1
Narcotic to Non-Narcotic	2
None	7

Table 2. Physical Activity of Twenty Patients Following Epidural Stimulation

Unchanged	10
Diminished	0
Improved	7
Normal	3

Table 3. Length of Follow-up for Twenty Patients after Implantation

Follow-up	Results	
	Good	Failure
More Than 24 Months	5	2
1-24 Months	3	2
12-18 Months	—	—
6-18 Months	1	4
1-6 Months	2	1

ral stimulation. A good response to transcutaneous stimulation allows one usually to predict a good outcome following implantation.

In this series the patients had undergone multiple spinal operations in an attempt to relieve their chronic pain. Among the patients who responded well to epidural stimulation, an average of 3.3 operations had been performed, whereas in the failures the average number of pre-stimulation interventions was 2.9. For the total group of 20 patients, a total of 62 operations with an average of 3.1 per patient had been performed. These differences are not statistically significant, and the number of operations prior to an attempt to relieve the pain by epidural stimulation seems to have no bearing on the final result.²

Lateralization of the pain syndrome appeared to be much more important in the final outcome. Indeed, among patients considered as having good results, seven presented with lateralized pain and four with bilateral pain. On the other hand, among the failures of the technique, the

pain was lateralized in only three cases, whereas it was bilateral in six. These results may be explained by the fact that it is rarely possible to obtain bilateral stimulation with equal intensity on both sides. We think that this factor is important. At the present time we consider patients with bilateral pain as poor candidates for epidural stimulation.

In this series only two patients out of twenty had presented with narcotic addiction. One was a success, the other a failure. This small number is explained by the fact that one of the requirements for admission to the Pain Program is acceptance of a detoxification treatment for participation in the program. We agree, however, with the opinion expressed in the literature³ that these patients are poor candidates for epidural stimulation. These patients are usually manipulative and poorly motivated to use epidural stimulation in order to replace the pharmacologic treatment. It is for such patients in particular that screening through a multidisciplinary pain program is important.

Complications

The first patient of this series suffered a postoperative infection associated with the epidural stimulator. After many attempts to preserve the device, it eventually had to be removed. Three months following removal, the patient received an implant of a dorsal column stimulator and still enjoys good pain relief more than two years post-implantation.

In three patients the pattern of stimulation changed significantly, and in each case the chronic pain returned. Follow-up x-rays revealed a significant displacement of electrodes in the epidural space. In all three cases, the epidural stimulator was removed and replaced by a posterior dorsal column stimulator implanted through an open laminectomy. Pain relief was again obtained in two cases, but the third still requires narcotic pain medication and is considered a failure.

Three additional patients returned with electrode movement with return of pain. These patients have not as yet had further operations and are considered failures.

Discussion

An evaluation of the patient's pain problem by a multidisciplinary team allows better selection for epidural stimulation. Narcotic use, if out of control, is a contraindication for the technique. Utilization of transcutaneous electric stimulation is not a reliable screening test to select patients for

surgery. It appears that the number of operations prior to epidural stimulation has no bearing on the final result. Patients who have clearly lateralized pain are good candidates for the technique. Patients with bilateral pain syndrome have only a minimal chance to obtain lasting pain relief.

The results in this series (plus or minus 50 per cent good results) are similar to results published by other authors.⁴ Movement of electrodes remains a major complication for which we have no satisfactory solution at the present time.

Summary

Twenty consecutive cases of internalized epidural stimulators were reviewed. All patients presented with "failed disc" syndrome following multiple laminectomies. Transcutaneous insertion technique and results as well as complications were reviewed. Good results in pain relief, together with resumption of normal physical activity were obtained in 50 per cent of the cases seen within the past two years. While patients with a lateralized pain syndrome fared well, bi-

lateral distribution of pain generally resulted in failure. One postoperative infection required removal of the stimulator. In six cases, electrode movement was considered as the cause of failure. Improved patient selection and a decrease in the incidence of electrode movement should improve these results. Epidural stimulation is, we believe, indicated in the treatment of chronic pain.

References

- ¹ Shealy CN, Mortimer JT, Reswick JB: Electrical inhibition of pain by stimulation of the dorsal columns: preliminary clinical report. *Anesth Analg* 46:489-491, Jul-Aug 67.
- ² Sweet WH, Wepsic JG: Stimulation of the posterior columns of the spinal cord for pain control: indications, technique and results. *Clin Neurosurg* 21:278-310, 1974.
- ³ Burton CV: Dorsal column stimulation: optimization of application. *Surg Neurol* 4:171-179, July 75.
- ⁴ Burton CV, Ray CD, Nashold B (eds): Symposium on the safety and clinical efficacy of implanted neuroaugmentative devices. *Neurosurgery* 1:214-215, Sep 77.

100 Dudley Street
Providence, RI 02905

Poised in Equilibrium: Doctors and Their Patients

Rita Charon, MD

"Poised in Equilibrium: Doctors and Their Patients" is the winning essay in the 1980 Fiske Fund Essay Competition. The award was presented to Rita Charon, MD at the Rhode Island Medical Society Annual Meeting in May 1981.

Funds for the establishment of this competition were bequeathed to the Society by Caleb Fiske, MD in 1834 in the form of forty shares of stock in the Union Bank in Providence, the value of which was then about \$2,000. Doctor Fiske's will provided that a "subject or subjects for investigation . . . conducive to the advancement of medical science" would be selected at every annual meeting of the society, and the best treatise on the chosen subject would be awarded "such premium or premiums as the annual product of such fund will justify." The subject selected for the 1980 competition was "medicine and regulatory law."

Doctor Caleb Fiske (1753-1835), a native of Scituate, was a direct descendant of Roger Williams. He studied medicine with Doctor William Bowen, an eminent physician of his time. Commissioned surgeon in the militia in 1789, he served in General Sullivan's expedition against the British on the island of Aquidneck. After the war he carried on a successful practice in Scituate, was a charter member of the Rhode Island Medical Society (1812), and later was elected President of the Society (1823-1824). At the annual meeting following his death, the Society adopted a resolution of sympathy which was conveyed to Doctor Fiske's relatives, expressing "respect for his professional learning and usefulness."

The first recipients of the Fiske prize in 1836 were Doctor Thomas H. Webb for his essay, "What are the causes and nature of rheumatism, and the best mode of treatment to be employed therein?" and Doctor David King of Newport on "What are the causes and nature of Purpura Hemorrhagica, and the best mode of treatment to be employed therein?" In later years, Doctor Charles V. Chapin on eight occasions was the recipient of the award. Doctor Charles E. Millard, incumbent President of the Rhode Island Medical Society, has received the prize on four occasions.

(Background from The History of the Rhode Island Medical Society and Its Component Societies, 1812-1962, East Providence, RI, Roger Williams Press, 1966.)

The Act passed in the third year of the reign of Henry III (which still stands unrepealed) is as far back as we need go; but there is evidence that even prior to that date the practice of medicine and surgery was not without some sort of regulation.¹

The tradesman, the landlord, and all who gain a livelihood out of the necessities of others, may flourish under the aegis of the law, but preferably not ourselves.²

Medical Student

The medical student gropes for the first words. "What brought you to the hospital, Mr. Petrillo?" He nervously fingers the cool metal hammer in his pocket. His Red Book of standard questions is with him lest he lose his way in the review of systems. He rehearses the choreographed physical exam in his mind, just as he has rehearsed it for weeks on the hale bodies of his classmates. Today he meets his first patient.

Never has he talked with an ill stranger. The old man in bed seems hardly to hear him. The man stirs softly, perhaps awakening from a half-sleep.

"Did Dr. MacFarland tell you that I'd be by? I'll only ask you some questions and examine you, okay?"

The man whispers his answers. Sometimes he repeats himself, or doesn't seem to understand the questions. A few times, he dozes away entirely, and then returns with a grimace to the room.

The student learns that Mr. Petrillo is in the hospital because he needs his right leg cut off. The left one they cut off a year ago. It's because of diabetes, the man thinks, but he says he always takes the medicine, even the needle when they tell him to. His daughter takes care of him at home now, but he can get around a little bit with the

Rita Charon, MD, a native of Rhode Island, is currently a Fellow in the Division of General Medicine, Columbia-Presbyterian Medical Center, New York City.

plastic leg. When they're finished with him this time, he goes into a nursing home. His daughter says maybe only for a little while.

The student finishes his interview very suddenly. He listens quickly to the man's chest, he touches his belly, he leaves.

He wasn't ready for this. They didn't tell him anything about the sadness. His professors hadn't prepared him for the force of the grief. That old man was going to have no legs at all, and because of diabetes? Wasn't there something to do besides to cut off his limbs?

He wasn't ready for the brutality of it. Not until now did the daily inexorable facts of illness and pain come home to him. The cadaver had taught him nothing about life.

This is our young doctor. Out of this child will grow the wise physician able to wait, to comfort, to cure. Out of this child will grow a wonder, a power, a dread.

This is our young doctor. His story begins with time. His future knows no bounds. His role in the worlds sets him off from the living; his fear of his end propels him from dying. His power knows no bounds.

Medical Regulation

The lay world has never known quite how to think about its doctors. It half-imagined, half-ordained this group of healers. Now it cowers and swaggers before them. Now it scorns, now it pleads. It allows its doctors to take its pulse and to hear its dreams. It tells them all its secrets.

The issue of medical regulation is inextricably bound to issues of professional autonomy, definitions of health and illness, doctor as scientist and priest, collective fear of death. More important perhaps is the person who is doctor and the experiences which shape his or her beliefs, values, view of the world. In order to address the question of regulation it is necessary to look first at the making of the physician and the context of the work of healing.

Now as in former times, there are brisk efforts to regulate the practice of medicine. George Bernard Shaw in 1911 stated:

Make up your mind how many doctors the community needs to keep it well. Do not register more or less than this number; and let registration constitute the doctor a civil servant with a dignified living wage paid out of public funds.³

The same conversation goes on today.

Since 1976 . . . when the Health Professions Education Assistance Act of 1976 (Public Law 94-484) was enacted, the federal government has sought to redress a perceived imbalance of physician manpower across specialties by increasing the number of primary care physicians. . . . New legislation to further this goal is currently being considered.¹

The regulatory mind takes medicine to be neither more nor less virtuous than the food industry, interstate commerce, or the press. The government has the duty to protect its population from fraud and danger from these and other institutions. It ensures adequate flow of goods or services from the various parties, oversees the

individual professional activities, publically punishes wrong-doing.

Under the shadow of government regulation, health care becomes a substance, rather like peanut butter, which can be spread more or less thickly to cover the area at hand. Gone from the definition of medicine is the sense of art, the sense of personal caring. Erased are the magical overtones of curing and intercession. Health care in the laws is a commodity to which all deserve access, which can be administered by any one duly licensed. The practitioners become interchangeable civil servants meting out neither punishment nor hope, but merely technical assistance.

Members of the medical profession feel outrage at being included in the ranks of the over-seen along with fastfood salesmen and casino owners. Attempts at price controls or lay voice in medical school admission are met with bristling denouncements of meddlesome agencies. Doctors quite simply refuse regulation.

Intern

The medical student is an intern now. He's on tonight, already got four admissions — a pulmonary edema, two strokes, and a GI bleed that's quiet now. He's up next, but the Emergency Room is quiet.

Blood for Lloyd, the post-tap film on Markey, the last set of lytes on Marsh, Cynthia's spiking again. He arranges his tasks geographically, having learned back in July the quickest way from the blood bank to x-ray to the lab. He's been here since 7 this morning, and here it's 9 pm. He has another 24 hours to work straight through before he goes home. People ask him how he stays awake through the whole thing. He says, "the fear."

"7284." His beeper goes off. "7284." Damn, the ER. He's got a fifth admission waiting downstairs, an alcoholic with a fever. He can predict his next few hours. Fresh frozen plasma, belly tap, work up the fluid, spinal tap, work up the fluid, stave off the rum fits. Markey's got a pneumothorax, not something you'd want to put a chest tube into; Marsh needs some insulin; no time for Cynthia.

Page to the unit. His GI bleeder opened up again, crit dropped to nineteen. Call the GI fellow, gotta scope him tonight, gotta scope him now. The guy's alert, ashen, says he feels like he's gonna die. Fifth unit going in, the fellow on call doesn't answer.

The new admission reaches IIA. He's jaundiced, he's mumbling incoherently, and he's febrile. His chart is immense from innumerable admissions. They fix him up and he goes out drinking again. His family doesn't let him in the house between emergency room visits. He comes up smelling of urine and the street. Why do they keep treating him?

Outside call. Hello, yeah? Miss Moore, Yeah, your mother's okay today. We had to shock her last night to get her heart rate down cause it was going too fast for her and her blood pressure was too low. . . . No, no nothing like that. . . . It's too early to tell, but she might have a little stroke, sometimes when you have to shock them they can get a little blood clot from the heart to the brain. . . . Yeah, no we can't tell because of the medicines she's on for. . . . You have to wait until after one in the afternoon. . . . Ask the nurses to page me when you get here, okay?

Blood bank for the sixth unit and some platelets. They're not ready yet. "I got your blood but it's past eleven already and my husband's waiting for me in the parking lot. You gotta wait for the night people to pool your platelets." He pools them himself and lopes down the four flights to the unit. The fellow is there already. He wants to know did they start the Pitressin yet. The intern curses,

he knows he should have done that already, finds a nurse to make up the drip.

The nurse from 11A calls to say where is the consent for the tap on the new guy? She needs orders written for him, can she give bed B in 21 a second Dalmane, Cynthia's up to 102, and Marsh's IV fell out.

His resident calls him. "Why didn't you tell me about the pneumothorax? Of course she needs a tube. You didn't get a gas? That thing is over 20% on the right, you want to wait til she turns blue?"

And so he spends his night; running, worrying, getting bled on, never sleeping. He sees the day shift of nurses come on at seven and realizes that they were the same ones as yesterday morning but they all went home for sixteen hours while he hasn't so much as had yesterday's lunch yet.

What did he learn from his night on? He learned that no one works as hard as he does, and that he often has even to do others' work for them. He learned that sometimes his treatment can end in disaster, and that he has to be ready to give a patient a stroke in trade for her hypotension. He learned to detest alcoholics even a little more than he did the last night on. He learned that he can make mistakes, and that he needs his superiors checking up on what he does.

The night troubles him, angers him, humbles him. He does the work of several people, yet he still gets hounded, scolded, wrung. He ends up feeling cut off from normal people who have husbands or wives waiting to drive them home and who get off from work at 3 pm. His sense of dread never leaves him.

What he wants now is only to sleep. He will sleep and he will dream with horror about his patients. He will dream with horror about the codes and the bleeds and the deaths. His only gift now is the magical belief that he, immunized by this torture, will live forever.

Structure of the Profession

The structure of the profession of medicine quite effectively protects the doctors from several forms of outside control. Eliot Freidson explains in *Profession of Medicine*:

When an occupation arises to serve some need or demand on the part of the lay community, and subsequently succeeds in becoming a profession, it gains the autonomy to become at least in part self-sustaining, equipped to turn back and shape, even create that need anew, defining, selecting, and organizing the way it is expressed in social life.⁵

Modern medicine is often described as a supply creating demand.^{4, 6} Who decides how many patients need dialysis? or bypass surgery? or a CT scan for their headaches? Who decides how frequently a patient must be seen by the physician, or at what point in an illness hospitalization is required? All these decision points are occupied by the physicians themselves. They alone have the knowledge and the experience to determine the need for their services, and they alone, oddly, can fill that need. More doctors often leads to greater demand for doctors' services.

Physicians' training equips them with a select view of health and illness. Those who train in academic centers become adept at high-technology, hospital-based practice. Their mentors are often researchers or sub-specialty defined practitioners. They respond to a wide range of ills by intervening with pharmacology or with

surgery or with machines. The longer they work in this milieu, the less able they are to re-examine the basic assumptions underlying their actions.

More: their experience in training isolates them into a separate race. They feel they are made of different cloth from those who work but eight hours at a stretch. They feel the weight of the decisions they make, and the folly of the scorn they feel toward certain patients. More importantly, they feel the guilt of their mistakes. Only others like themselves, who have made similar errors, can absolve them, can lessen their burden of having been wrong.

Perhaps the student will be silenced and stunned by the enormity of a double amputation, but soon he will be able to distance himself from that pain. Soon, he will sacrifice intimacy with those he sees, for the price of intimacy with many sick and dying patients is a constant, non-consolable sadness.

Gradually, the alliances of the physicians with the rest of the world are replaced with loyalty to their peers. They trade for their medical identity their ability to face out to the world.

As Freidson says:

Imperialistic ideology is built into the perspective that [the doctor's] training and practice create. It cannot be overcome by ethical dedication to the public interest because it is sincerely believed in as the only proper way to serve the public trust. . . . The pathology arises when outsiders may no longer evaluate the work by the rules of logic and the knowledge available to all educated man and when the only legitimate spokesman on an issue relevant to all men must be someone who is officially certified.⁷

Several factors bolster this professional autonomy. One useful force to consider is the very definition of health and illness. As Irving Zola states:

The list of daily activities to which health can be related is ever growing and with the current operating perspective of medicine it seems infinitely expandable. The reasons are manifold. It is not merely that medicine has extended its jurisdiction to cover new problems, or that doctors are professionally committed to finding disease, or even that society keeps creating disease. For if none of these obtained today, we would still find medicine exerting an enormous influence on society. The most powerful empirical stimulus for this is the realization of how much everyone has, or believes he has, something organically wrong with him, or, put more positively, how much can be done to make one feel, look, or function better.⁸

Zola points to many factors generating the current expansion in the responsibility of doctors. As the society becomes increasingly secularized and attempts to become less punitive toward wrongdoers, medicine steps in to perform the work of the priests and the wardens. Alcoholics, overactive children, teenage mothers, transsexuals are but a few of the people now found under their

doctors' care who once were considered to be either sinners or criminals. This essay will deal later with the relationship between medicine and religion. Suffice it now to say that the demise of the churches and clergy as strong supports in the lives of Americans has swelled the ranks of patients bringing personal and even moral problems to their doctors. This growing confidante-confessor role increases the power of medicine by adding absolution to the list of possible prescribed entities.

Simultaneously, several problems once in the domain of the courts are now rerouted to hospitals and clinics. Pleas of insanity are only the most visible of many alterations of the crime to produce disease. Substance abuse, sexual offences, child battering are increasingly thought of as warranting treatment rather than sentence, enlarging substantially the turf of medicine.

Both these areas of newly-included disorders to be treated by the doctor increase medicine's ability to affect the value system of the society. To the doctors now the people turn for definitions not only of health and disease but also of normalcy, morality, and virtue.

Clinic

The woman sat down heavily in the cramped clinic office. This was her third visit in two weeks.

"Mrs. Parker, not going so well, hunh? Are the pains getting worse?"

"Taft won't let Alice back. They say she been messing around and being in fights. And Luke's father in Jacobi. He got a stroke they say or bleeding."

Mrs. Parker had first come to clinic because of chest pain. She was a woman in her forties with five kids, only four of them living. The oldest boy had gotten knifed to death in front of their house when he was eighteen. Now the high school was suspending her middle girl, and her lover was bleeding somewhere.

"What happened?"

"He got pains in his head and he couldn't see straight in front of him. We called the 911 and they didn't come but two hours later to get him and then we had to wait in emergency me and Debra."

"And could you talk to him?"

"He was just moaning and holding his head and being like sleepy but he never been there before so they didn't know him or anything or have his chart."

"And what about now?"

"He in intensive care."

"On a machine to breathe?"

"Yeah, and needles in his arms and that."

"He awake?"

"Unh-unh. They won't let me see him but once an hour and then only a few minutes. He was sleeping I think but you couldn't tell and they didn't tell me about him and all."

She had a history of rheumatic fever as a kid, and now had mitral disease. She had been on dig and diuretics for some time. Her dyspnea was mild, but did limit the amount of work she could do. She started getting angina in the past few months. Her cardiogram was unchanged, and the pain was easily controlled with nitrates.

Alice was sixteen and in trouble all the time. The doctor had seen her, and had found her to be severely depressed. The death of the oldest boy had happened a year ago, and Alice had never really mourned his loss except with rage. They were trying to get a therapist to see the girl intensively, but she had to wait her turn on the list.

"What about your chest? You having trouble breathing?"

"It's not so bad except when I'm waiting for Alice to come home from school. I be worrying about her walking up the block by herself."

"Are you taking the medicines? You out of anv?"

"No I got the heart pill and the water pill and the one for under my tongue. I need a letter for housing, though, they turned me down for the elevator building."

"What do you want me to say?"

"About the stairs and the breathing and that the older kids can't all be in one room still."

There wasn't much one could do to speed the city agencies. Big apartments were hard to get. Mental health services were stretched too thin. The high schools were impenetrably ugly once they decided they didn't want your kid. And house staff in the city hospital ICU were impossible to get on the phone.

They both felt blunted, weary, stumped. The doctor knew that come five, he would get in his diesel Rabbit and be home safe with his wife in twenty minutes. He could dip in and out of this world of nobility and dread at will. He could marvel at and support the strength of his patient; he could write his memos and make his phone calls to ease in very small ways the torment of being poor and sick in the Bronx. He could manage her congestive failure and get her to surgery when she needs it.

He couldn't heal her, though. He couldn't exorcise the demons of racism and fear. He couldn't lay his hands and cure the wounds. He felt not drained but empty. How he wished he could have helped.

The Doctor in Society

In trying to decipher the role of the doctor in society, it is useful to look back to his origins.

Osler says in *The Evolution of Modern Medicine*:

At first, the priest and the physician were identified, and medicine never became fully dissociated from religion. . . . Disease and death were . . . caused by some malign influence which . . . very often belonged to the invisible world. "Often, though, it belongs to the invisible world, and only reveals itself by the malignancy of its attacks: it is god, a spirit, the soul of a dead man, that has cunningly entered a living person, or that throws himself upon him with irresistible violence. Once in possession of the body, the evil influence breaks the bones, sucks out the marrow, drinks the blood, gnaws the intestines, and the heart and devours the flesh. . . . Whoever treats a sick person has therefore two equally important duties to perform. He must first discover the nature of the spirit in possession, and, if necessary, its name, and then attack it, drive it out, and even destroy it. . . . He must then use medicine (drugs and diet) to contend with the disorders which the presence of the strange being has produced in the body."⁹

Even more radical is the statement by Warbasse in *The Doctor and the Public*:

Apollo the physician was a god of the Greeks. . . . He developed into a person of extraordinary quality, and in the course of time Jupiter was assigned the distinction of being his father. . . . Tradition has it that he was miraculous in much of his conduct. . . . He was comely and perfect of form. The lyric poets described him as the god who presided over the healing art. Thus the first physician recorded in Greek literature was a god.¹⁰

Doctors harken from the wizards, the magicians, the priests. The healing force has its roots in physiology as it does in sorcery. Doctors cannot place the boundary between body and soul, hence is perpetuated the dual aspects of their work. As Mark Renaud summarizes:

Human beings have always, throughout known history, culturally endowed certain persons with the authority to define health and illness and with the power to alleviate pain and distress, whether these persons be shamans, priests, or physicians, and whatever their objective effectiveness in curing disease might be. Despite the proclaimed "rationality" and the idealized search for scientific efficiency in advanced capitalistic societies, human beings still cannot escape from being frightened by death and sickness, thus building scientific medicine into a myth and investing the various therapeutic facilities with the appropriate rituals and value-content to celebrate this myth, independently of the costs involved and of their objective health-maintenance effectiveness.⁶

Mortals need miracles. Even now in the rational era, most people seem not to favor the idea of an inglorious dusty end. Doctors play the pivotal role in brushes with death. Whatever one's philosophical stance vis-a-vis death, the moment of pain or serious illness is an unknown danger. At that time, one needs an interpreter for that foreign language, a guide for that foreign land.

When a doctor is present at an illness, whether terminal or trivial, she or he embodies the forces of science and the forces of the gods. Osler, discussing Assyrian and Babylonian medicine, quotes M. Jastrow, whose words could just as easily be said about modern tertiary care:

Science (in Mesopotamia) reached a much higher stage than in the valley of the Nile. . . . Here, too, we find medicine ancillary to religion. Disease was due to evil spirits or demons. These 'demons' — invisible to the naked eye — were the precursors of 'germs' and 'microbes,' while the incantations recited by the priests were as mysterious to the masses as are the mystic formulas of the modern physician to the bewildered, yet trusting, patient. Indeed, their mysterious character added to the power supposed to reside in the incantations for driving the demons away. Medicinal remedies accompanied the recital of the incantations, but despite the considerable progress made by such nations of hoary antiquity as the Egyptians and Babylonians in the diagnosis and treatment of common diseases, leading in time to the development of an extensive pharmacology, so long as the cure of disease rested with the priests, the recital of sacred formulas, together with rites that may be conveniently grouped under the head of sympathetic magic, was regarded equally essential with the taking of prescribed remedies.¹¹

As time went on, secrets were laid bare. Babies came from wombs. Malaria came from mosquitoes. Hearts beat, blood flowed. Dark power was replaced by science. The gods gave way to reason.

The Western World today believes confidently in its medicine. It funds its research, it takes its pills, it surrenders to its knife. It believes that Marcus Welby knows best. Illness and death, though, continue to serve many masters. Despite advances in knowledge of human physiology and pathophysiology, illness to this day maintains the force of darkness, evil, sin.

Susan Sontag says in *Illness as Metaphor*:

Illness is the night-side of life, a more onerous citizenship. Everyone who is born holds a dual citizenship, in the kingdom of the well and in the kingdom of the sick. Although we all prefer to use only the good passport, sooner or later each of us is obliged, at least for a spell, to identify ourselves as citizens of that other place.

The speculations of the ancient world made disease most often an instrument of divine wrath. Judgment was meted out either to a community or to a single person. The diseases around which the modern fantasies have gathered — TB, Cancer — are viewed as forms of self-judgment, or self-betrayal. . . .

One's mind betrays one's body. . . . The person dying of cancer is portrayed as robbed of all capacities of self-transcendence, humiliated by fear and agony.

Patients who are instructed that they have unwittingly caused their disease are also being made to feel that they have deserved it.¹²

There are many trivial and many profound ways in which patients today are blamed for their illnesses. One is punished for drinking, for smoking, for forgetting one's monthly breast exam. The modern mortal sin is to let oneself get out of shape.

As gatekeepers to that night-side of life, the doctors are in a powerful position. They can inflict and they can wash away the stain of illness. (This is most notably true in the more recent "diseases" like alcoholism or homosexuality which are conferred by mere label.) They control the traffic between one kingdom and the next.

The intern makes rounds on his patients sticking needles into arms, spines, chests, joints; or prescribes medicines which give the patient nausea or take away his sex drive. It stands to reason, especially the faulty reason of an intern who hasn't slept in two days, that these people must have done something to deserve this punishment. The very experience of the doctor intensifies the modern myth that the patient is to blame for his illness, and that treatment should teach him a lesson.

Sontag continues:

For those who live neither with religious consolations about death nor with a sense of death . . . as natural, death is the obscene mystery, the ultimate affront, the thing that cannot be controlled. It can only be denied.¹²

A large part of the doctors' immunity from outside control is derived from the fact that they contract out death. They allow themselves to witness the obscene, to be bested time after time by the ultimate affront. To any criticism from outside their ranks, they can answer, "So *you* take care of them when they're dying, see if you like it."

These fears and ragings are tempered by other approaches to death. Let me offer you in closing this section the thoughts of William Carlos Williams, himself a physician.

If we are to understand our time,
we must find the key to it,
not in the eighteenth
and nineteenth centuries,
but in earlier, wilder
and darker epochs.
So to know, what I have to know
about my own death,
if it be real,
I have to take it apart.¹³

Cloak of Omnipotence

This essay began by questioning the nature of medical regulation. It may be that the structure of the profession of medicine and the nature of illness and death shield doctors from certain outside controls. However, why are there no price ceilings on the services essential to life? Does this society truly believe that the poor have a slimmer right to life than do the rich? Or that some diseases lessen one's claim to life?

The potential trespasses of the medical profession are gargantuan compared to cockroaches in the chef's kitchen or to tractor trailers over weight. Yet the scrutiny paid to the price of a candy bar far surpasses that paid to the price of a cancer operation. It is perhaps more likely that society refuses to regulate its doctors.

Society is still not ready to take away from its doctors the cloak of omnipotence. When the surgeon washes his hands and is vested in his greens, he might just as well be at an altar as at a prepped belly. When a code is called for cardiac arrest, the ritual splashing of Isuprel® and the laying of the paddles fulfills some function for the recesses of our consciousnesses as well as for the pity of the myocardium.

We saw how regulation is distasteful to the profession because of its leveling effect. The doctor of George Bernard Shaw is a factotum. Doctors of all eras have resisted this diminution in their status, both because of their wishes for prestige and because their work is made possible only by the power of their position.

To regulate medicine would be to admit that, in fact, the doctor has no special powers. To hem in the practice of medicine by laws would be, as we saw, to remove its magic. Perhaps the society is willing to pay the price of an autonomous priesthood of doctors in order to maintain its belief in the godly powers of the medicine man.

For when the pain comes, they want to believe that the doctor can take it away. When the body breaks down, they want to believe that the doctor can put it together. When they have difficult ethical decisions to make, they want to feel that someone can, by virtue of his job, select the wisest course of moral action.

If the lay public finds a need for a larger-than-life figure of physician, that public will assure a circle of privilege and autonomy around him and will mystify him out of proportion to themselves. One need only look at a few episodes of Dr. Welby or Body Human to see that glorified role incarnate. The public will pay its dues to the profession in order to get sacred protection from the scourges of illness. For when the death comes, they don't want to be alone.

Public Servant

We have taken a circuitous journey through the lands of sadness, anger, resignation. We have explored autonomy, definition of health or disease, medicine's relationship to religion, illness as sin, treatment as punishment. We have glimpsed the confusing array of experiences which create the doctor.

We have heard little of the joys of medicine, about the pneumococcal pneumonias that get better now or about the preemies who today can live. We heard little about these, not because they don't exist, but only because their converse throws more sharply into focus the boundary between a people and its doctors. More: the doctor's power is manifest most strongly when he inhabits the dark world of pain and death.

We learned that this relationship between a people and its doctors is a complicated one. Doctors punish, patients confess, rituals heal, clinics jail. We saw patients bringing to their doctor their hopelessness, their poverty, their rage. The doctors are taught to treat with medicines and to administer diagnoses. Is it any wonder that both doctor and patient emerge with frustration and remorse?

As in the temporal economy of the molecule in resonance, which bears simultaneously two or three different spatial configurations, so too that relationship of a people and its doctors is a multiple one. The doctor is at the same time omnipotent god and public servant requiring regulation.

In one model, the doctor is the idealized best of our collective selves. It is to this pinnacle of strength that we turn in the moments of pain and terror. We allow, despite our otherwise reasoned lives, ourselves to believe in the power to raise from the dead.

We know the doctor of this side. He is the one who can fix broken lives. His compassion is all-encompassing, his judgment is keen, his wisdom limitless. This doctor is above the law. His moral sense is relied upon to choose always the path of virtue in the most complex moral dilemmas. This

is the one called "my doctor." This doctor soaks up the ambiguities and the responsibilities of travel in his dark kingdom. He does all he can.

This doctor exists side-by-side with the rascal on the golf course, the charlatan with his snake oil, the fraud. This is the one who needs to be watched. This is the one for whom the laws are made. At his best, this one is public servant with a defined job to do. He has no conscience; he has no soul. He is the one who spawns scandals on *Sixty Minutes*; he is the one who profits from our pain.

The balance between these two is fluid. Each practitioner is both charlatan and demi-god in the eyes of the patients. The public can neither regulate nor leave off regulating because of the dual role played by each doctor.

Doctors have become embroiled in a society's decision for or against a power greater than themselves. The society finds itself with ever more complex problems. At the same time, they are being robbed of the magic in which they could once take refuge. If a secular society will not leave all in God's hands, it still needs some place of last resort. Doctors have become this last resort by virtue of their origins and their dealings with pain and death. As we saw, their mandate has grown to include the tasks once performed by priests: the definition of normality, morality, worth. They cannot help but stamp the decisions they make with their own values.

The standing as deity protects the doctors from being punished as scoundrels. Because of the fear of interfering in the workings of magic, the patients allow the doctors the power and even the wrong-doings without exercising control.

Because of the promise of their magic, and because of the inequality of power in the doctor-patient relationship, the patients are not able to turn down their help. Because of the public's ambivalent wish for a power greater than themselves, they are unable to refuse the doctors their supremacy.

Hence, the doctors and their patients collude in developing this balance. The doctors nurture their image as demi-god (through mass media projection of the Marcus Welbies and the heroes of *Lifeline*) because this image affords them standing. The patients are tempted to nurture this image as well, especially in times of sickness, because this is the repository of their hopes for being saved.

This means that both sides must suffer under false expectations of power on the one hand and submission on the other.

We need to acknowledge the fact that the patients are the ones in pain and in fear for their lives. They cannot be expected to extricate themselves and ourselves from the mismatch of expectations.

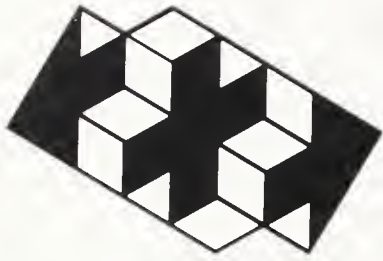
The burden is ours to recognize the discrepancy between what we are trained to do and what, in fact, we do. The task is ours as physicians to clarify the roles and responsibilities. We would prefer, I believe, a system where patients take responsibility for making the excruciating decisions about prolonging life and distributing scarce medical resources. We would prefer if we did not have to bear the weight of conscience for making the choices of a people. We would prefer it if patients did not have unrealistic demands on our ability to cure.

The patients, on their side, are growing in sophistication and desire for control over their care. The increasing rate of malpractice litigation attests to this fact. Perhaps the time has come for us to be able to give up both roles of scoundrel and deity. Perhaps we can be wise enough to admit the limits of what we know, and patients can be strong enough to listen. If we can do this, we can enter true equilibrium with our patients. We can become neither the all-powerful nor the malpractitioners. We can practice our art and our science with grace, with respect, and with true care.

References

- ¹ Right to practice. *Brit Med J* 2:1634-1635, 26 Nov 1898.
- ² Strady J: Growth in commercialism in medicine. *JAMA* 30:697-701, 26 Mar 1898.
- ³ Petersdorf RG: The doctor's dilemma. *New Engl J Med* 299:628-634, 21 Sep 78.
- ⁴ Steinberg EP, Lawrence RS: Where have all the doctors gone? *Ann Intern Med* 93:619-623, Oct 80.
- ⁵ Freidson E: *Profession of Medicine*. New York, Dodd, 1970, p 330.
- ⁶ Renaud M: On the structural constraints to state intervention in health, in Ehrenreich J (ed): *The Cultural Crisis of Modern Medicine*. New York, Monthly Review, 1978, pp 101-120.
- ⁷ Freidson E: *Professional Dominance: The Social Structure of Medical Care*. Chicago, Aldine, 1970, p 160.
- ⁸ Zola I: Medicine as an institution of social control, in Ehrenreich J (ed): *The Cultural Crisis of Modern Medicine*. New York, Monthly Review, 1978, p 91.
- ⁹ Osler W: *The Evolution of Modern Medicine*. New Haven, Yale University Press, 1920, p 11, quoting from Maspero: *Life in Ancient Egypt and Assyria*. London, 1891, p 119.
- ¹⁰ Warbasse JP: *The Doctor and the Public: A Study of the Sociology, Ethics and Philosophy of Medicine, Based on Medical History*. USA, Hoeber, pp 17-18.
- ¹¹ Jastrow M: The liver in antiquity and the beginnings of anatomy. *Trans Coll Phys* 29:117-138, Nov 07.
- ¹² Sontag S: *Illness As Metaphor*. New York, Random House, 1979.
- ¹³ Williams WC: *Pictures from Brueghel and Other Poems*. New York, New Directions, 1962.

248 West 102nd Street, Apt. 2B
New York, NY 10025



Blackstone Valley Surgicare

Easier for you, nicer for them.

- Same-Day Surgery facilities for general surgeons, gynecologists, plastic surgeons, ophthalmologists, oral surgeons, otolaryngologists, orthopedists
- Managed by physicians with the doctor in mind
- Open staff
- General anesthesia
- Block bookings
- Modern, pleasant environment
- Nursing staff exclusively oriented to the ambulatory surgical patient
- Easy access from Route 95; plenty of parking
- Full Blue Cross and commercial insurance coverage
- Accredited, National Society for Free Standing Ambulatory Surgical Care

Call 728-3800 for more information and bookings.

Blackstone Valley Surgicare, Inc.
333 School Street
Pawtucket, Rhode Island

Recurrent Pacemaker Electrode Displacement into the Right Atrium with Capture

Improved Leads Reduce the Incidence of This Complication

Constantine P. Pagonis, MD
Paul C. Hessler, MD

Since 1952, when Zoll used a pacemaker to maintain normal cardiac function in Stokes-Adams syndrome, cardiac pacing has become the treatment of choice for symptomatic heart block and brady-tachyarrhythmias resistant to medical treatment.^{1, 2} One of the most common pacemaker complications is displacement of the electrode from the right ventricular apex.³ The following case illustrates a rare example of pacemaker electrode displacement from the right ventricle into the right atrial endocardium with capture. Pittman reported a similar case in 1977.⁴

Case Report

An 83-year old white man with a three month history of pulmonary tuberculosis presently being treated with INH and Ethambutol was admitted in September 1979 with a two-week history of near syncopal episodes secondary to intermittent sinus arrest, diagnosed by a 24-hour Holter monitor. Physical examination showed an alert, elderly, slender man in no distress. Blood pressure was 135/85, pulse was 62 and regular. Heart sounds were distant without gallops, clicks, or murmurs. Breath sounds were moderately decreased. EKG showed left bundle branch block (LBBB) and a normal sinus rhythm at 70/min. Chest x-ray study was consistent with chronic, obstructive pulmonary disease (COPD) and right ventricular enlargement. The permanent pacemaker implanted was a unipolar CPI* programmable VVI pulse generator Model 0505 with a solid tip flanged endocardial electrode. The electrode was inserted via the

right cephalic vein into the right ventricular apex and the resulting paced rhythm was at 72 beats per minute (Fig 1). Six hours following insertion, EKG showed right atrial capture (Fig 2), and the pacing spike fairly consistently showed a P-R interval of 0.26 followed by the QRS with a rate of 72. At times, the electrode floated free in the right atrium. The chest film showed the pacemaker electrode in the right atrium (Fig 3). The electrode was repositioned into the right ventricle (Fig 4). Several hours later, the EKG again revealed atrial pacing, and a chest film showed that the electrode had moved back into the right atrium. The recurrent displacement was attributed to the patient's enlarged right ventricle and to excessive movement of his upper extremities. The patient was restrained, the electrode was replaced in the right ventricular apex, and normal pacemaker function has been maintained ever since.

Discussion

After exit block, dislocation of the electrode is the second most common reason for pacemaker failure.³ Between 1965 and 1973, Conklin studied 400 patients with permanent transvenous pacemakers with conventional flanged tipped endocardial leads. He found a displacement rate of 5 per cent. Other authors report higher rates, especially in the early post-implantation period.⁵ Causes of malposition include excessive weight of the pulse generator, "Twiddler's syndrome" wherein the patient rotates the pulse generator within the chest pouch, excessive flexibility of the electrode wire, and inexperience of the surgeon.⁶ Once dislodged, the electrode may be found in the right ventricular outflow tract, pulmonary artery, right atrium, inferior vena cava, and the coronary sinus.

Several pacemaker manufacturers have designed transvenous electrodes with a greater tendency to adhere to the right ventricular endocardium. In February 1979, Painter⁷ reported a dislodgement rate of only 2.5 per cent with

* Cardiac Pacemakers, Inc.

Constantine P. Pagonis, MD, in the private practice of internal medicine, Cumberland, Rhode Island.

Paul C. Hessler III, MD, Department of Radiology, John E. Fogarty Memorial Hospital, North Smithfield, Rhode Island.

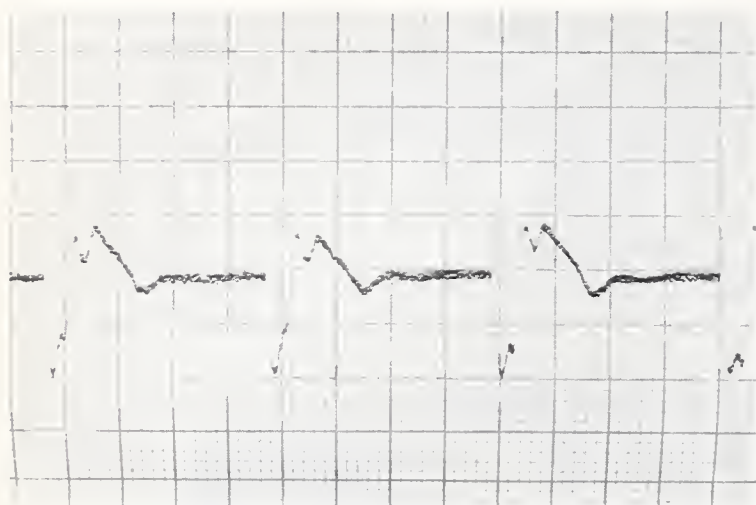


Figure 1. Electrocardiogram, monitor lead, showing paced rhythm at 72 per minute.

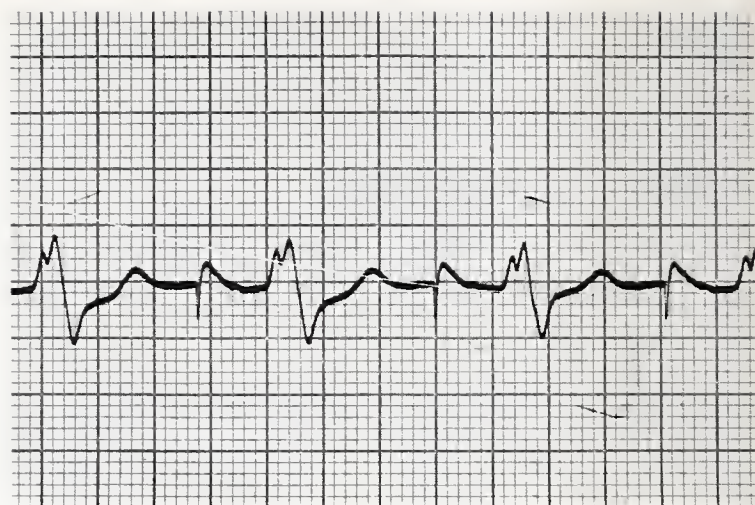


Figure 2. Electrocardiogram, monitor lead, showing right atrial capture. The P-R interval was 0.26 with a rate of 72.



Figure 3. Frontal chest film showing the pacemaker electrode high in the right atrium (solid arrow).



Figure 4. Frontal chest film showing the pacemaker electrode repositioned into the right ventricular apex (solid arrow).

electrodes containing flexible silicone rubber tines proximal to the tip. Two months later, Holmes⁸ compared use of tined versus conventional flanged electrodes during the first thirty days following implantation. He found that none of the tined electrodes became dislodged, compared with a 21 per cent displacement rate for flanged electrodes. Holmes's study suggests that patients such as the one presented here who have a dilated poorly contracting right ventricle may benefit from tined electrodes because of their positive fixation in the trabeculae of the right ventricle. Most recently, a new porous platinum-iridium tipped lead has been manufactured by CPI which seems further to decrease the rate of early electrode displacement by better tissue ingrowth and consequently better anchoring.⁹

Summary

An unusual case of recurrent displacement of a permanent pacemaker electrode from the right ventricle into the right atrium with capture is reported. The causes of electrode displacement and the advantages of newly developed endocardial electrode tips are discussed. In this case, right ventricular enlargement and excessive motion of patient's upper extremities appear to have contributed to the pacemaker displacement.

Acknowledgement

Special thanks to James J. Yashar, MD, and Mr. Jay Packer.

References

- ¹ Zoll PM: Resuscitation of the heart in ventricular standstill by external electrical stimulation. *N Engl J Med* 274:768-771, 13 Nov 52.
- ² Kitcher JB, Kastor JA: Pacing in acute myocardial infarction — indications, methods, hazards, and results. *Cardiovasc Clin* 7:219-243, 1975.
- ³ Conklin EF, Giannelli S Jr, Nealon TF Jr: Four hundred consecutive patients with permanent transvenous pacemakers. *J Thorac Cardiovasc Surg* 69:1-7, Jan 75.
- ⁴ Pittman DE: Dislodgement of pacemaker electrode with subsequent atrial capture. *Medical Times* 105:114-122, 1977.
- ⁵ Castle LW: The pacemaker lead, 1979 — in search of the fail-safe electrode. *Mayo Clin Proc* 54:275-276, Apr 79.
- ⁶ Steiner RM, Morse D: The radiology of cardiac pacemakers. *JAMA* 240:2574-2576, 1 Dec 78.
- ⁷ Painter MW, Harrington OB, Crosby VG, et al: Implantation of an endocardial tined lead to prevent early dislodgment. *J Thorac Cardiovasc Surg* 77:249-251, Feb 79.
- ⁸ Holmes DR Jr, Nissen RG, Maloney JD, et al: Transvenous tined electrode systems, an approach to acute dislodgement. *Mayo Clin Proc* 54:219-222, Apr 79.
- ⁹ Anundson DC, McArthur W, Mosharrafa M: The porous endocardial electrode. *Pace* 2:30-40, 1979.

C. P. Pagonis, MD
106 Nate Whipple Highway
Cumberland, RI 02864

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

DISTINCTIVE
OFFICES FOR
DISCRIMINATING
TASTES



We Make Offices
That Work For You

National Business Interiors

A Division of National Office Supply Co

36 Branch Ave., Providence, R I 02904 (Branch Ave. Exit Rt 95)

401-274-9000

HEALTH HAVENS
NURSING HOME

East Providence



evening clinic for alcohol affected families

A state licensed private medical outpatient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

Medical Fellow in Endocrinology wanted for diagnosis, treatment and patient care in all areas of endocrinology. Requires M.D. degree, 2 years medical residency. 50 hours per week \$23,680.00 per year. Send resumes to Thomas W. McAvoy, Rhode Island Job Service, 40 Fountain Street, 4th Floor, Providence, Rhode Island 02903. I.D. #1013-567099.

OB-GYN TEACHING COORDINATOR

AT TRUMAN Medical Center/East, one of two teaching hospitals for the University of Missouri-Kansas City School of Medicine. Joint faculty appointments in Departments of Family Medicine and OB-GYN. Primary responsibilities teaching OB and office GYN to Family Practice residents, supervision of and work with, a 4th-year OB-GYN resident, some lesser involvement with medical students, and consultation in high-risk pregnancy problems as they present. Competitive salary, excellent fringes, opportunities for additional practice, if desired. Contact Family Medicine Department, University of Missouri-Kansas City School of Medicine, Truman Medical Center/East, Route 17, Kansas City, Mo. 64139. (816) 373-8210. Attention: Thomas A. Nicholas, M.D., Chairman, or Robert E. Stelle, M.D., Vice-Chairman.

GREENVILLE MEDICAL CENTER

7 SMITH AVE., GREENVILLE, R.I. 02828

Finished office available

Desirable location for Internist,
Family Practitioner, and other
Specialties

401/331-7171

DEMENTIA REVISITED:

Early Recognition and
Treatable Forms

2-4 pm, January 20, 1982

Regan Conference Center
General Hospital R.I. Medical Center
Cranston, Rhode Island

All Health Professionals Welcome



CARDIAC REHABILITATION at THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

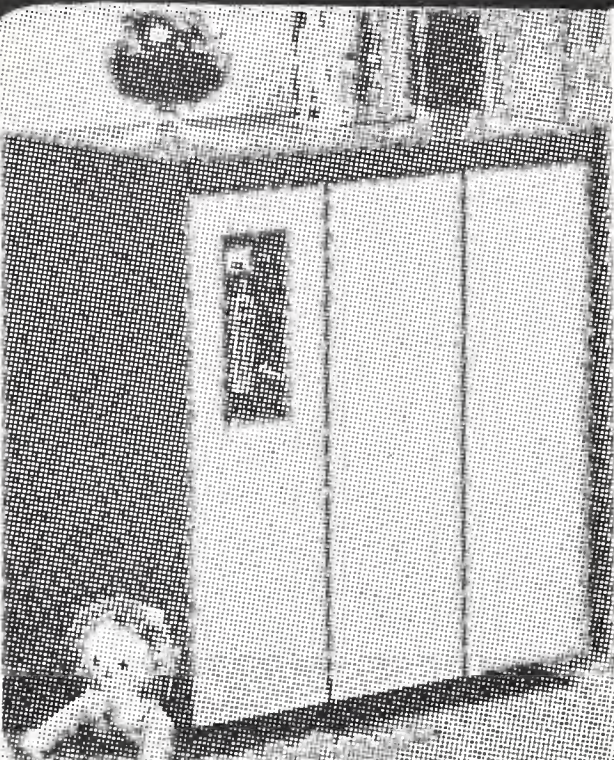
- following myocardial infarction
- following cardiac surgery
- with stable angina pectoris

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166

Rhode Island Medical Journal

February 1982

Volume 65, Number 2

Hospital Costs
See pages 57, 59, 61



CONTRIBUTIONS

- 69 Respiratory Distress and Severe Cyanosis in a Full Term Neonate
73 The Mallory-Weiss Syndrome in the Pediatric Population
75 Thyrotoxic Subacute Thyroiditis Associated with Hepatitis

NEWSLETTER

57 PRESIDENT'S CORNER

59 EDITORIALS

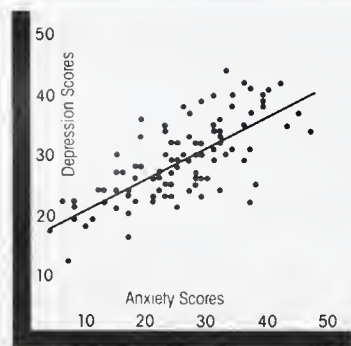
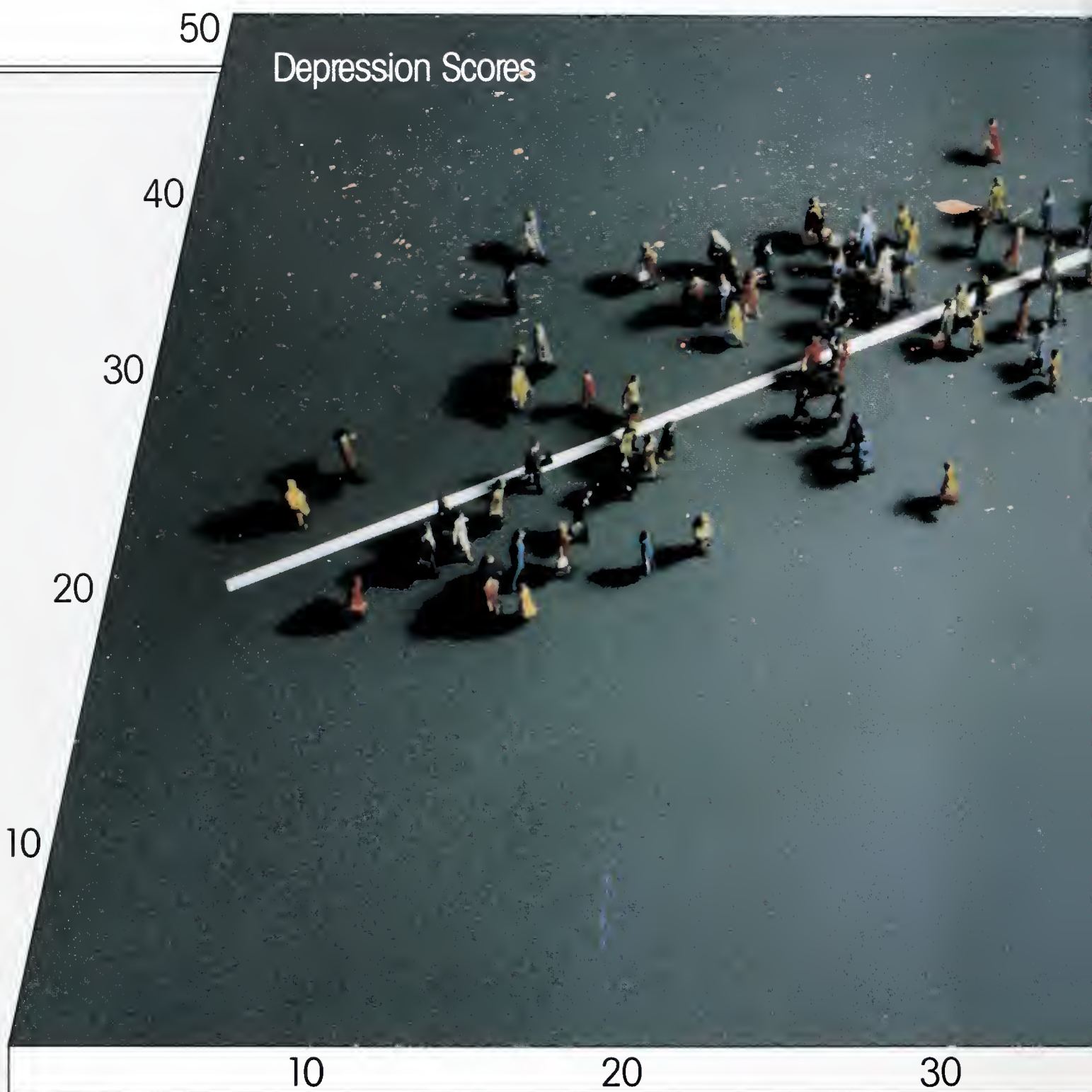
61 EDITOR'S MAILBOX

63 PROGRESS IN NEUROLOGY

LIBRARY
U.C. SAN FRANCISCO

MAR 2 1982

FOR THE 7 OF 10 NONPSYCHOTI



Clear correlation between anxiety and depression³

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

³Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics* 11:438-441, Sept-Oct 1970.

Rhode Island Medical Journal

February 1982
Volume 65, Number 2

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Paul Calabresi, MD

Herbert Fanger, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

* **John F. W. Gilman, MD**

* **Edwin J. Henrie, MD**

* **Patrick R. Levesque, MD**

Robert V. Lewis, MD

* **Peter L. Mathieu, Jr., MD**

Umberto Capuano
Student

*Member of Publications Committee

* **Jay M. Orson, MD**

* **P. Joseph Pesare, MD**

* **Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Charles E. Millard, MD
President

William F. Varr, Jr., MD
Vice President

David R. Hallmann, MD
Secretary

Melvin D. Hoffman, MD
President-Elect

Erminio Cardi, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Peter D. T. Clarisse, MD
Newport County Medical Society

Richard G. Bertini, MD
Pawtucket Medical Association

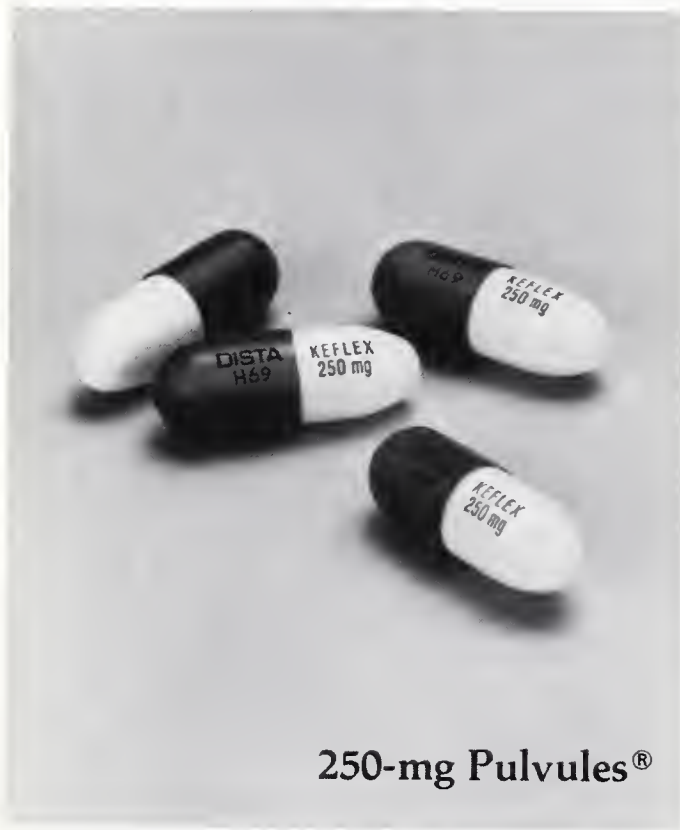
Herbert Rakatansky, MD
Providence Medical Association

Joseph J. O'Neill, MD
Washington County Medical Society

Roger J. Fontaine, MD
Woonsocket District Medical Society



easy to take



Keflex®

cephalexin

Additional information available
to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

TABLE OF CONTENTS

49 **NEWSLETTER**

57 **PRESIDENT'S CORNER**

Cost Sharing Is Terminological Legerdemain

59 **EDITORIALS**

The Year 1981 in Medicine

Hospital Costs: Prospects for 1982

61 **EDITOR'S MAILBOX**

Why Not a Single System of Review?

63 **PROGRESS IN NEUROLOGY**

Electrocardiographic and Cardiac Enzyme Abnormalities in Acute Cerebrovascular Disorders

CONTRIBUTIONS

69 **Respiratory Distress and Severe Cyanosis in a Full Term Neonate**

Clinical Pathological Conference

Mary Ann Passero, MD Richard Frates, MD Don B. Singer, MD

73 **The Mallory-Weiss Syndrome in the Pediatric Population**

Rare Condition in Children Should Be Considered in the Presence of Hematemesis

Peter P. Yu, MD Deborah White, MD Edward A. Iannuccilli, MD, FACP

75 **Thyrototoxic Subacute Thyroiditis Associated with Hepatitis**

Pathogenic Relationship Between the Disorders Is Not Clear

Tom J. Wachtel, MD

Are you protected from employee embezzlement?

The Office Protection Plan (TOP) gives you one low-cost policy that covers:

- Destroyed accounts receivable
- Employee dishonesty and embezzlement
- Destroyed patient charts
- Office liability
- Personal injury
- Office equipment
- Practice interruption

Plus many other significant risks faced by physicians. And TOP covers these risks fully ... adequately ... so you need not worry again about loss. For more information on TOP, call Don Marcum at (401) 421-6900.



ESTABLISHED 1879

Starkweather & Shepley INC.

Representing the World's Major Insurance Companies

155 South Main Street, Providence, RI 02903 Telephone (401) 421-6900

Newsletter

February 1982

Charles E. Millard, MD, Editor
Karen Challberg, Associate Editor

A BILL TO LIMIT THE FTCs JURISDICTION OVER PROFESSIONS

Senator James McClure (R-Ida.) has introduced a bill in the U.S. Senate (S 1984), which, he says, "would end the suppression of self-regulation by preventing the Federal Trade Commission from initiating any more actions against the professions or their non-profit associations." The bill has bipartisan backing.

NEED, NOT ECONOMICS, DETERMINES LEVEL OF HEALTH CARE

In Massachusetts, Medicaid reduced fees on certain surgical procedures by 30 per cent. Since the fees were so far below the prevailing rate charged by surgeons, there should have been a significant decline in the number of operations performed. Instead, according to the American Journal of Public Health, the number held steady, reinforcing the view that need, not economics, dictates the level of health care.

(From Current Health, Martin Publishing, 1981)

PER CAPITA EXPENDITURES FOR PHYSICIANS: R.I. AND U.S.

In 1978 in Rhode Island the per capita expenditure for physicians' services was \$126. This was 14.9 per cent of total per capita expenditures for health services and supplies in the state. In the U.S. the per capita expenditure for physicians' services was \$160, which was 19.9 per cent of the total per capita health costs.

(From Rhode Island's Health, Rhode Island Department of Health, 1981)

CAUSES OF HOSPITAL COST INCREASES

At a recent meeting of a national Subcommittee on Health and Environment, J.A. McMahon, the President of the American Hospital Association, stated that 14 per cent of the annualized 19 per cent hospital cost increase based on the first nine months of 1981 over 1980 levels is attributable to inflation, 3 per cent represents new services, and 2 per cent is caused by increased hospital admissions.

NUMBER OF APPLICANTS FOR MEDICAL SCHOOL DECREASING

According to a recent issue of JAMA, the number of medical school applicants in the U.S. declined for the sixth consecutive year in 1980-1981, to total a 15.3 per cent decrease from the peak year 1974-1975.

OCEAN STATE IPA LICENSED

The Ocean State IPA has become licensed according to the provisions of Chapter 17, Title 23 of the General Laws of Rhode Island. Marketing and enrollment activities will be deferred pending submission of a management agreement acceptable to the Director of the Rhode Island Department of Health and proposed rates. Dr. Joseph E. Cannon, Director of Health, signed the license on January 13, 1982.

STATE MEDICAL JOURNALS: RHODE ISLAND EXPENSES BELOW AVERAGE

The State Medical Journal Advertising Bureau (SMJAB) has conducted a survey of medical societies' financial support of their scientific publications. The study revealed that this support, including direct subventions and other costs, averaged 11.7 per cent of total annual association expenses. The Rhode Island Medical Society was below average in support of the Rhode Island Medical Journal with 9 per cent of its annual expense budget. Seebert J. Goldowsky MD, Editor-in-Chief of the Rhode Island Medical Journal and a member of the board of SMJAB, initiated the study.

RIMS MEMBERSHIP COUNT

	November 1981	December 1981
Total RIMS members	1423	1424
Total AMA members	760	762
New RIMS member		1
New member: James Myers, MD		

RIMS STAFF NEWS...RESIGNATIONS...BEST WISHES

Mr. Howard E. Lawton, an Assistant Executive Director since 1979, resigned from his position in December after 2½ years with the Society. Mr. Lawton has accepted an administrative position with a telephone equipment company in the Newport area.

Miss Judi Zimmer, Librarian, resigned in January after 7 years of service to the Society. Miss Zimmer joined the staff as an assistant librarian and was promoted to Librarian in 1977.

Mrs. Jane Gwynn, assistant librarian, also resigned in January. She had been a member of the staff for about eight months.

BROCHURE: "PHYSICIAN FEES UNDER MEDICARE"

The AMA's Council on Medical Service has revised its brochure, "Physician Fees under Medicare," to reflect 1981 changes in the Medicare law. A copy of the brochure is available from the Department of Health Care Financing and Organization, American Medical Association, 535 North Dearborn Street, Chicago, IL 60610, phone (312) 751-5974.

CHARGES FOR PHYSICIANS' SERVICES

In November, charges for physicians' services rose at a rate of 1.1 per cent, exceeding the rate of increase in the all-items (.3 per cent) and all-services (.6 per cent) components of the Consumer Price Index (CPI). Over the 12-month period ending in November, physicians' fees increased at a rate of 12 per cent, while the all-services component of the CPI went up 14.1 per cent and the all-items component rose 9.6 per cent.

PERIPATETICS...

Howard S. Sturim, MD was elected president of the Southern New England Hand Society at its recent meeting on December 11, 1981.

Rhode Island physicians to be formally inducted as fellows of the American College of Physicians at its 1982 Annual Session are Walter J. Lentz MD, Gerhard C. Meier MD, David N. Newhall MD, and Michael A. Passero MD.

New officers of the Kent County Medical Society are Edward F. Asprinio MD, president; William J. O'Rourke MD, vice president; Alfred Arcand MD, secretary; and Fred T. Perry MD, treasurer.

Irving A. Beck MD has been appointed a member of the National Peer Review Panel of PIQuA (Private Initiative in Quality Assurance). The project, sponsored by the American College of Physicians, the American Society of Internal Medicine, and the American Hospital Association, is funded by the W.K. Kellogg Foundation. The program is now in an in-depth pilot phase, to determine the validity of a methodology to assay the clinical competence of practicing internists.

According to a recent announcement, new medical staff officers at Roger Williams General Hospital are H. Raymond McKendall MD, president; Henry S. Urbaniak Jr. MD, vice president; F.J. Cummings MD, secretary-treasurer; and Joseph Tucci MD, executive committee delegate.

Alvin G. Gendreau MD has been elected to a three-year term as chairman of the Rhode Island Section of the American College of Obstetricians and Gynecologists.

Fiorindo Simeone MD has been chosen president-elect of the New England Surgical Society.

New officers of the medical staff at Rhode Island Hospital will be Melvyn Gelch MD, president; Brian Dorman MD, president-elect; James Herndon MD, vice president; and Paul Sydlowski MD, treasurer.

William J. MacDonald MD, Chairman of the Board of Blue Shield of Rhode Island, has been elected to the Board of Directors of Blue Shield of America, the National Association of Blue Shield plans.

FROM THE HOUSE OF DELEGATES

At its January meeting the House of Delegates approved a resolution that the president appoint a committee to develop a position on the Rhode Island Professional Standards Review Organization (RIPRO) decision to initiate a new retrospective review system and to discontinue concurrent reviews. The House also passed a resolution in support of the "Uniform Determination of Death Act" to be introduced in the 1982 Rhode Island General Assembly. (Minutes of House proceedings are available from the Society headquarters on request.)

CME REQUIREMENT FOR RELICENSURE 1983

Chapter 5-37 of the General Laws of Rhode Island 1956, as amended, states that "Every physician licensed to practice medicine or surgery within this state shall, on or before the first day of October, apply to the Rhode Island board of examiners in medicine for a certification of triennial registration with the board. The applicant shall include satisfactory evidence to the board of examiners that in the preceding three (3) years the practitioner has completed a prescribed course of continuing medical education established by the appropriate medical society and approved by rule or regulation by the board of examiners in medicine. If the applicant submits satisfactory evidence to the board that he has completed a prescribed course of continuing medical education and has complied with the provisions of 5-37-10, the board shall issue the applicant a certificate of triennial registration for a three year period commencing on 1 January. The board may extend for only one six (6) month period such educational requirements if the board is satisfied that the applicant has suffered hardship which prevented meeting said educational requirement."

According to the above provision, the Committee on Standards and Credentials of the Rhode Island Medical Society has prescribed a minimum of 60 documented credits of continuing medical education since January 1, 1980 to meet the requirement for physician relicensure beginning January 1, 1983.

The Rhode Island Department of Health plans to furnish forms to physicians for recording of their continuing medical education credits on or about August 1, 1982 to be filled out and returned to the Department before October 1, 1982 to demonstrate that the continuing medical education credit requirement has been met.

On or about December 1, 1982 relicensure registration forms will be issued, which must be filed before December 31, 1982 for the 1983 licensure year.

The Committee on Standards and Credentials will meet sometime after the upcoming registration to determine the prescribed course of continuing medical education for the triennial period, 1983 to 1986.

The Physician's Recognition Award (PRA) of the American Medical Association is acceptable to meet the relicensure requirement if at least 60 of the documented credits for the PRA were earned during the 3-year relicensure period.

The Committee on Standards and Credentials will continue to aid any member to determine if he has met this requirement set by the Rhode Island Medical Society.

(Submitted by Herbert F. Hager, MD, Chairman, Committee on Standards and Credentials)

There's more to ZYLOPRIM[®] than (allopurinol).



- From Burroughs Wellcome Co. – the discoverer and developer of allopurinol
- Patient starter/conversion kits available for easy titration of initial dosage
- Patient compliance pamphlets available
- Continuing medical education materials available for physicians



Prescribe for your patients as you would for yourself.

*Write "D.A.W.," "No Sub," or "Medically Necessary,"
as your state requires, to make sure
your patient receives the original allopurinol.*



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Motrin[®] vs aspirin w/codeine.

(ibuprofen)



compare the analgesic effect

A Motrin 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients.

In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the Motrin and aspirin-with-codeine groups...

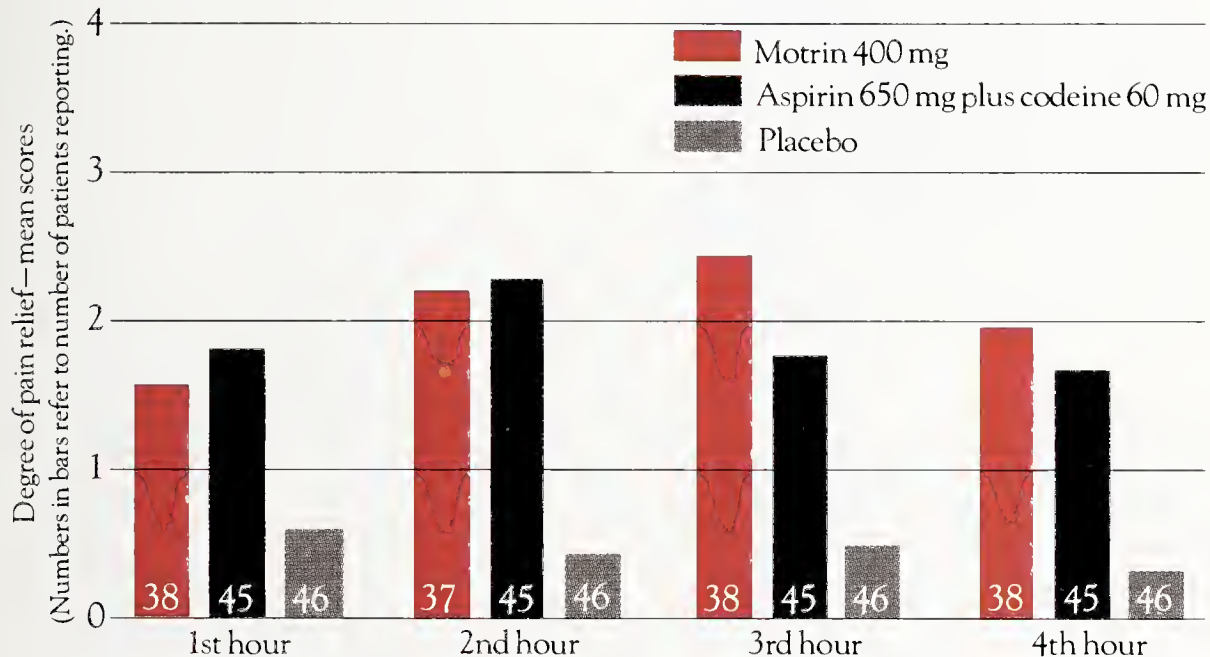
with Motrin being significantly more effective ($p = 0.03$) at the three-hour interval.

Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief

Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



Data on file at The Upjohn Company.

One tablet q4-6h prn

For relief of mild to moderate pain:

Motrin[®] 400mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming • Nonscheduled
- Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with Motrin is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin[®] (ibuprofen)

now proved an effective analgesic for mild to moderate pain

Motrin[®] Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,^{*} epigastric pain,^{*} heartburn,^{*} diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,^{*} headache, nervousness. **Dermatologic:** Rash^{*} (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena.

Central Nervous System: Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease. Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

MED B-4-S

It's time we took
arthritis seriously

It's a myth that arthritis is just the minor aches and pains of old age. It's a majorcrippler that attacks. Anybody. Anytime. 31 million Americans have it. There are almost a million new cases a year. And six out of ten are under 60. Symptoms can come and go for years. So if you don't know the warning signals, find out. If you'd like information that could help you—or you'd like to help us—write to the Arthritis Foundation, Box 19000, Atlanta, GA 30326.



ARTHRITIS
FOUNDATION



Cost Sharing Is Terminological Legerdemain

Cost sharing and cost shifting are euphemisms which disguise the disturbing fact that Medicare, Medicaid and Blue Cross do not pay full charges for hospital services in some cases, and in other cases do not pay any charges for services. New regulations limiting payments by Medicare and Medicaid make it necessary for hospitals to compensate for this in many ways, one of which is out of the rate structure.

The lengthy rate-setting procedure in Rhode Island begins in March preceding each fiscal year with MAXICAP negotiations between the state as the purchasing agent for Medicaid, Blue Cross, and the Hospital Association of Rhode Island for the state's hospitals. In late March or early April, a fixed percentage increase figure for the state is agreed upon. Then, hospitals begin their individual budget preparations, and through summer-long negotiations agree to limit their expenditures to a fixed amount.

When the above steps are completed, actual rate setting begins. Each hospital assigns its overhead to the various revenue-producing areas or "cost centers" according to appropriate measures; establishes rates for services in each cost center so as to provide the revenue to meet these expenses; and submits its "cost-finding" forms to the appropriate reviewers. Then Medicaid determines allowable rates for its patients, as does Blue Cross, by calculating the *ratios of costs to charges* for each individual department. From these a single reimbursement rate for outpatient services and another for inpatient services is established.

The result is that Medicaid, Medicare and Blue Cross patients pay a lower rate for services than self-pay and privately insured patients. State and Blue Cross pay *costs*; other patients pay *charges*, which are higher. Private patients in paying charges contribute a greater share to hospitals' fixed expenses than do state and Blue Cross patients who pay costs.

At the end of each fiscal year, the "volume corridors" are settled between the state and Blue Cross, and hospitals. Revenue is frequently refunded by the hospitals to such payers based on formulas allowing for fixed and variable costs.



Charles E. Millard, MD

For example, for ancillary services the variable cost factor is 35 per cent. If a hospital has provided more laboratory services than anticipated, it is entitled to only 35 per cent of the reimbursement rate for services over the expected volume and must therefore return the fixed cost factor difference of 65 per cent. For inpatient days the variable cost factor is only 20 per cent for days up to 5 per cent over anticipated volume, 30 per cent for days 5 to 7 per cent over the anticipated volume, and 40 per cent for days 7 to 10 per cent over the anticipated volume. For outpatient services the variable cost is 60 per cent of the reimbursement rate. Hospitals often underestimate inpatient days, which inflates rates, and then must return dollars to Blue Cross and Medicaid — but not to other payers. Therefore, volume adjustments increase the inequality of cost-sharing between the state and Blue Cross on the one hand and self-pay or privately insured patients on the other.

In addition to rate differentials, other factors also contribute to the higher bills for self-pay and privately insured patients. For example, Medicaid exclusions for appliances or use of equipment may result in a patient requiring additional

routine services, for which everyone foots the bill. Another example is in the varying calculations of depreciation either on a straight line or accelerated basis. If a hospital calculates depreciation on an accelerated basis while a payer does not, capital formation problems are aggravated, hospital overall indebtedness and interest costs increase, and charges to patients go up.

When PSROs recommend reductions in expenditures for Medicare, the end result is not cost saving, but cost shifting. As succinctly stated in a recent article in *The New England Journal of Medicine*, "reductions in expenditures on Medicare cannot be considered equivalent to reductions in hospital costs. Hospitals face costs that are independent of the patient load in the short term. Thus, when Medicare payments are reduced, it can be anticipated that these costs will be transferred to other patients. When a correction is made to account for this fact, the apparent saving produced by the PSRO program is converted to a substantial net loss. Over the long run, of course, the system can presumably adapt to a reduced patient load in a way that will eliminate the excess fixed costs. At that point, a reduction in the Medicare expenditures should actually reflect a reduction in hospital costs, not just a reduction in payments by the federal government. Even when

measured by reimbursement costs, however, the saving that has been achieved by the PSRO program appears minimal."

Cost *sharing* is indeed a euphemism when financial burdens are transferred in the above ways without awareness of the inequity by consumers and even health professionals. At Rhode Island Hospital alone it is estimated that 4 to 5 per cent of approximately \$50 million in annual costs for Medicare patients are not reimbursed by Medicare. Therefore, \$2½ million worth of services are delivered to Medicare patients and paid for indirectly by all patients. A federal study has shown that underpayments by Medicare and Medicaid that were shifted to private patients amounted to nearly \$3 billion in 1979 alone. Cost shifting is really a deceptive transference of funds and in the end is *not* cost saving. New equal pay arrangements in states such as Maryland and New Jersey may be the solution. With further Medicare and Medicaid cutbacks in the wings, we have a challenge to protect our PATIENTS from the government's slackening of its commitments.

Reference

Schwartz WB: The regulation strategy for controlling hospital costs: problems and prospects. *N Engl J Med* 305 (21):1249-1255, 19 Nov 81.

The Year 1981 in Medicine

As each new year dawns, the AMA publishes a list of some of the past year's most exciting developments — that have advanced the course of medicine significantly. This year's list includes the following:

PET Scanner — Spawned from the CAT scanner, this second generation technology (PET: Positron emission tomography) permits observation for the first time of the actual functioning of cells.

Hepatitis B Vaccine — The first entirely new viral vaccine to be approved in ten years, it will be the first line of protection against a virus that infects as many as 300,000 Americans a year.

Lytic Enzyme Therapy — This is still a highly experimental treatment but shows considerable promise of preserving heart muscle from further damage following a heart attack, or possibly even aborting heart attacks by dissolving clots in coronary arteries.

Hybridoma Technology — This development has made possible the production of monoclonal antibodies, which are analogous to natural targeted immunological defenses. The technology has opened up new vistas in cancer detection and disease therapy, and has added as well to the general understanding of the body's immune system.

Microsurgery — Microsurgical blood vessel anastomosis has been expanded into the brain.

Electrical Stimulation to Promote Bone Healing — With the use of electromagnetic forces, bone healing has been achieved at a rate comparable to that of bone-graft operations, with considerably less risk.

In-Utero Surgery — The past year has witnessed pioneering fetal surgery, extending into the uterus for the treatment and correction of several disorders that threaten the fetus.

Calcium Antagonists — This is a new direction in the treatment of certain cardiac irregularities and angina by drugs that influence calcium metabolism at the cellular level.

Beta-Lactams — These new, third generation antibiotics (penicillins were the first generation of beta-lactam antibiotics) have a wide spectrum of activity against gram-negative bacteria.

Beta-Blockers — Use of these drugs has sharply reduced the death rate among heart attack victims by providing significant protection against the recurrence of attacks.

There is little doubt that there are many other dramatic medical discoveries and developments waiting in the wings as we enter 1982.

Seebert J. Goldowsky, MD

Hospital Costs: Prospects for 1982

Elsewhere in this issue are two discussions of current political-economic problems. The first paper (see Editor's Mailbox) relates to the present status of the Rhode Island Professional Standards Review Organization. The fiscal squeeze to which PSROs are currently being subjected has brought a plea from Doctor Alton M. Paull and Edward J. Lynch, President and Executive Director respectively of RIPSRO, for a unitary peer review sys-

tem in Rhode Island to be financed by Medicare, Medicaid, and Blue Cross. With the drying up of Medicare support, the withdrawal of Medicaid participation by the State Department of Social and Rehabilitative Services (SRS), and the improbability of participation by Blue Cross, the outlook for RIPSRO is grim.

The second paper (see President's Corner) by Society President Doctor Charles E. Millard

addresses the practice of Medicare, Medicaid, and Blue Cross of paying for hospital *costs*, rather than *charges*, necessitating that private paying patients and private insurers make up the shortfall by paying increased charges. This practice appears not likely to be corrected in the near future.

Hospital costs will undoubtedly continue to rise in 1982 and in the foreseeable future due to continued inflation, burgeoning technological developments, increasing utilization (despite utilization surveillance), and the aging of the population. In a paper in *The New England Journal of Medicine* of November 19, 1981 Doctor William B. Schwartz of Tufts University Medical School, a physician, discusses the problems and prospects for "The Regulation Strategy for Controlling Hospital Costs." He analyzes three strategies to accomplish this objective: 1) Professional Standards Review Organizations, 2) Certificate-of-Need Programs, and 3) Mandatory Prospective Reimbursement. His enthusiasm for the first two is, to say the least, restrained, while he feels the third option shows some promise.

Some of his conclusions are worthy of attention. The general availability of insurance that provides full or nearly full coverage, he believes, is a key factor in the progressive increase in hospital costs.

The data on dollar savings by PSROs are ambiguous. Reductions in expenditures on Medicare cannot be considered as equivalent to reductions in hospital costs, since many hospital costs are independent of the patient load in the short term. Therefore, when Medicare payments are reduced, these costs will be shifted to other patients. He suggests that, if a correction is made to account for this fact, the apparent saving effected by the PSRO program is converted to a substantial net loss. He concludes that the influence of

PSROs on Medicare and Medicaid expenditures will have slight effect on overall health-care costs. He believes, however, that any contribution of the PSRO program to the improvement in the quality of care must be considered a true benefit to society.

With regard to the Certificate-of-Need process, he is of the opinion that the program directed primarily to elimination of duplicate facilities would be mostly "one-shot" and would result in a very small saving (less than one per cent of hospital costs) and often in the shifting of costs (eg to transportation) and lawsuits (eg resulting from the absence of needed equipment at a given site). Controlling costs by rationing of facilities would engender political battles and litigation of increasing intensity. Regarding prospective reimbursement, Schwartz discusses several programs, but does not mention the successful Rhode Island experience. Analyses controlling relevant variables, such as demographic factors, show unequivocally that states utilizing mandatory prospective reimbursement have a slower rate of increase in hospital costs than those that do not. He concludes that "prospective reimbursement is the only regulatory mechanism that has shown real promise to date."

We have not touched here upon the Reagan concept of "competition," since the details of relevant proposals are not yet available. What we have read, however, does not arouse great enthusiasm. It would appear that 1982 will indeed be an interesting year in the realm of health-care costs. How productive it will be is another question.

Seebert J. Goldowsky, MD

Reference

Schwartz WB: The regulation strategy for controlling hospital costs: problems and prospects. *N Engl J Med* 305(21):1249-1255, 19 Nov 81.

Why Not A Single System of Review?

To the Editor:

The Rhode Island Professional Standards Review Organization (RIPSRO) was established in March of 1973 as the result of concern of the Congress over the quality and cost of health care for Medicare and Medicaid beneficiaries. Shortly after the incorporation of RIPSRO, at a meeting of most health care agencies in Rhode Island, it was agreed that in the best interests of all parties a single review system for all types of reimbursement should be developed.

At the inception of the PSRO program, it was the understanding of those of us involved in the program that quality would be the major concern. Subsequently, with changes in the national administration, it became evident that cost was to be a major factor in evaluation of PSRO performance. As we became more knowledgeable, it was clear to us that it would be difficult to separate the issues of cost and quality.

Over the last several years, the PSRO program has changed because of Congressional budget reductions. Initially, the program was funded to conduct 100 per cent concurrent review for all federal beneficiaries. As a result of our expertise and experience, data base development, and Congressional budget cuts, the program was changed to that of a problem-oriented focused review system.

Once we had developed significant data, we sought to integrate the Blue Cross patient population into our review system. Discussions were never successful in achieving the goal of a single review system.

Now, as a result of budget restrictions and the decision by Medicaid authorities in Rhode Island to exercise their option of developing their own review system in January 1982, we can anticipate that there will be three conflicting review systems operating in the hospitals of Rhode Island. In our opinion, this will result in increased costs and marked confusion. Moreover, it will not be in the best interests of patients. There will be a significant reduction in the likelihood of attaining those goals for which we have worked so hard.

If the Rhode Island Department of Social and Rehabilitative Services (SRS) had opted to continue with the PSRO program, 75 per cent of the cost of the entire program would have been underwritten by the federal government. The actual cost to the State of Rhode Island to continue the program now in effect would be in the neighborhood of \$33,000 — which is a small sum to pay for the advantages of an efficient, effective, impact-oriented review system. In addition, the action by SRS has had significant effect on the future direction that the RIPSRO will take. As a result of the decision, there will be major modifications in our program resulting in the formulation of an external retrospective review system in January 1982.

The efficiency of the PSRO review system in reducing cost has been questioned. It has been stated that there is a shifting of cost rather than a reduction of cost. It is well known that hospitals have fixed expenses. They have been making up for the savings we have achieved in the 40 per cent of hospitalizations paid for with federal funds by passing increasing costs to the 60 per cent of patients in private care. The result has been no net savings to society. A single review system, therefore, appears to be the logical answer to avoiding the shifting of cost and to accomplish cost saving to society as a whole.

The PSRO has been criticized as being bureaucratic, uncooperative, and protective of its membership. It is our observation that we are less bureaucratic than those large health bureaucracies whose critical voices we hear. We further believe that the major difference between the "voluntary" sector and our program (if in fact there is a difference) lies in the degree of accountability.

An objection voiced by our critics is that the PSRO is an arm of the government. This demonstrates a complete misunderstanding of the peer review program. The RIPSRO, like all PSROs, is a private physician peer review organization. As to charges that we have been protective of the medical community, it should clearly be noted

that *there is no review system existing in Rhode Island conducted by any professional or non-professional organization that is as objective, equitable, and impact-oriented as the peer review mechanism that has been developed by RIPSRO*. Witness the fact that in the past three years, the number of peer review decisions resulting in denials has exceeded 3,000.

Some physicians may not accept the validity of the peer review system. Yet they must realize that with an expenditure for health care of \$240 billion in 1980 and an estimated \$900 billion by 1990, supervision of the delivery of medical services is inevitable. Most physicians would prefer to have physicians looking over their shoulders rather than insurance clerks, who lack an understanding of the complexities of medical practice.

We believe that physicians alone will be able to

reduce health care costs without reduction in the quality of care. Peer review, data analysis, accountability, and impact are the essential ingredients for effective review. A single system is the method by which effective and economical review can be achieved.

Alton M. Paull, MD
President
Rhode Island Professional
Standards Review Organization

Edward J. Lynch
Executive Director
Rhode Island Professional
Standards Review Organization

Electrocardiographic and Cardiac Enzyme Abnormalities in Acute Cerebrovascular Disorders

Katy Kiley, MD; L. R. Jenkyn, MD

Abnormal electrocardiograms and elevated cardiac enzymes have been associated with acute neurovascular events. Etiology and significance of these abnormalities have not been clarified. Complicating features include: 1) risk factors for cerebrovascular disease and coronary artery disease (CAD) are similar and they often coincide in patients; 2) CAD with resultant myocardial infarction (MI), arrhythmia, and congestive heart failure can precipitate neurologic signs via embolism or hypoperfusion; and 3) central nervous system modulation of myocardial function is poorly understood.

Norris *et al*¹ performed a prospective study of 288 patients admitted to rule out stroke, following creatine phosphokinase (CK), lactate dehydrogenase (LDH), serum glutamic oxaloacetic transaminase (SGOT) and cardiac monitoring over four days. The patients without stroke served as controls. Significant CK elevation was seen in the stroke group furthering a study in which CK was fractionated. Eight per cent of stroke patients had positive CK-(MB) fractions versus six per cent of controls. Most stroke patients with CK-(MB) had EKG abnormalities, ranging from transmural and subendocardial MI to increased ischemia (compared to prior tracings). Those stroke patients with CK-(MB) but without EKG changes, however, had documented cardiac arrhythmias. The authors noted that rise in the CK-(MB) was progressive (over four days) rather than acute (over twenty-four to forty-eight hours). A significant difference was noted in the incidence of arrhythmias between the CK-(MB) stroke group (92 per cent) versus stroke patients without CK-(MB) elevation (50 per cent). The authors concluded that "acute ischemic and hemorrhagic strokes may be accompanied by acute myocardial ischemia and increased serum cardiac enzymes with cardiac arrhythmias, [and that] these coincidental find-

ings raise the possibility that acute cardiac abnormalities are a direct consequence of the neurologic lesion." This study, however, was not controlled for pre-existing cardiac disease, arrhythmias were not defined, and the influence of other variables affecting myocardial function such as blood pressure and oxygenation was not evaluated.

Goldstein² conducted a retrospective review of 300 hospital records (150 patients with stroke and 150 age- and sex-matched inpatient controls) attempting to evaluate frequency, character, specificity, and prognostic value of EKG abnormalities associated with acute stroke. When prior tracings were available for comparison, 74 per cent of patients with stroke had new EKG abnormalities, versus 14 per cent of controls. The most common EKG abnormality was QT prolongation (45 per cent); inverted T waves, U waves, tachyarrhythmia, depressed ST segments, left ventricular hypertrophy, and "any arrhythmia" were each noted in approximately 25-30 per cent of patients. EKG changes were not useful in characterizing a particular kind of stroke; however, atrial fibrillation (AF) was more frequent with cerebral embolism (47 per cent) versus all other strokes (9 per cent). Of patients with cerebral embolism and prior tracings available, AF was a new finding in 50 per cent. QT prolongation, and ST-T wave depression correlated with the degree of hypertension on admission. The combination of QT prolongation, U wave and depressed or large, upright T waves was always new (8 per cent incidence) and associated with intracranial bleeding but not with hypertension or mortality. CK levels were obtained in 33 of 150 patients. Sixty-one per cent had elevated levels (100 per cent of patients with intracranial hemorrhage, 41 per cent of patients without intracranial hemorrhage). Autopsies were performed in 8 patients all with intracranial hemorrhage and documented CK

elevations. Three of these eight had ischemic EKG changes and no gross or microscopic evidence of myocardial infarction. Goldstein concluded that "except for lethal ventricular arrhythmias, no EKG changes were related to mortality . . . specific EKG changes may be associated with, but not specific for, particular cerebral events." This is a retrospective study and subject to observer bias. QT prolongation was also unusually frequent among the control group. Other causes of CK elevation were not addressed nor controlled by isoenzyme fractionation.

Dinant *et al*³ performed a similar study of 100 patients with acute cerebral events versus 100 controls submitted with carcinoma of the colon. The incidence and significance of EKG abnormalities and cardiac enzyme elevations over the initial three days of hospitalization were assessed. Admission EKGs were abnormal in 90 per cent of patients versus 50 per cent of controls. ST segment depression, QT prolongation, and atrial fibrillation occurred most commonly. Non-specific ST-T wave changes and old MI were present equally in patients and controls. EKG changes (general or specific patterns) were not associated with increased mortality. Enzymes were elevated in 29 per cent of patients versus 0 per cent of controls. CK elevation was associated with increased mortality in all groups with acute cerebral events, but CK elevation did not correlate significantly with EKG abnormality. The authors concluded that CK elevation is associated with increased mortality in stroke patients and is a better predictor of myocardial damage than EKG changes. They recommended that patients with an acute cerebral event undergo cardiac monitoring and enzyme analysis. This study did exclude patients with hypotension and hypoxemia but did not control for pre-existing cardiac disease. CK isoenzymes were not obtained nor were alternate causes of CK elevations (seizure, trauma) excluded.

Lavy *et al*⁴ studied 52 stroke patients with serial EKGs and cardiac monitoring. The presence of prior CAD was assessed by a history of symptoms, prior EKG abnormalities or both. The authors state that patients with other causes for cardiac abnormalities (hypotension, hypoxia, and electrolyte imbalance) were excluded. New ischemic changes and arrhythmias were increased in these patients and associated with poorer prognosis in the absence of CAD. Cardiac enzymes were not obtained. Morbidity and mortality of the patients

with EKG changes were not discussed. Therefore the relationship of the "poorer prognosis" with new EKG abnormalities is unclear.

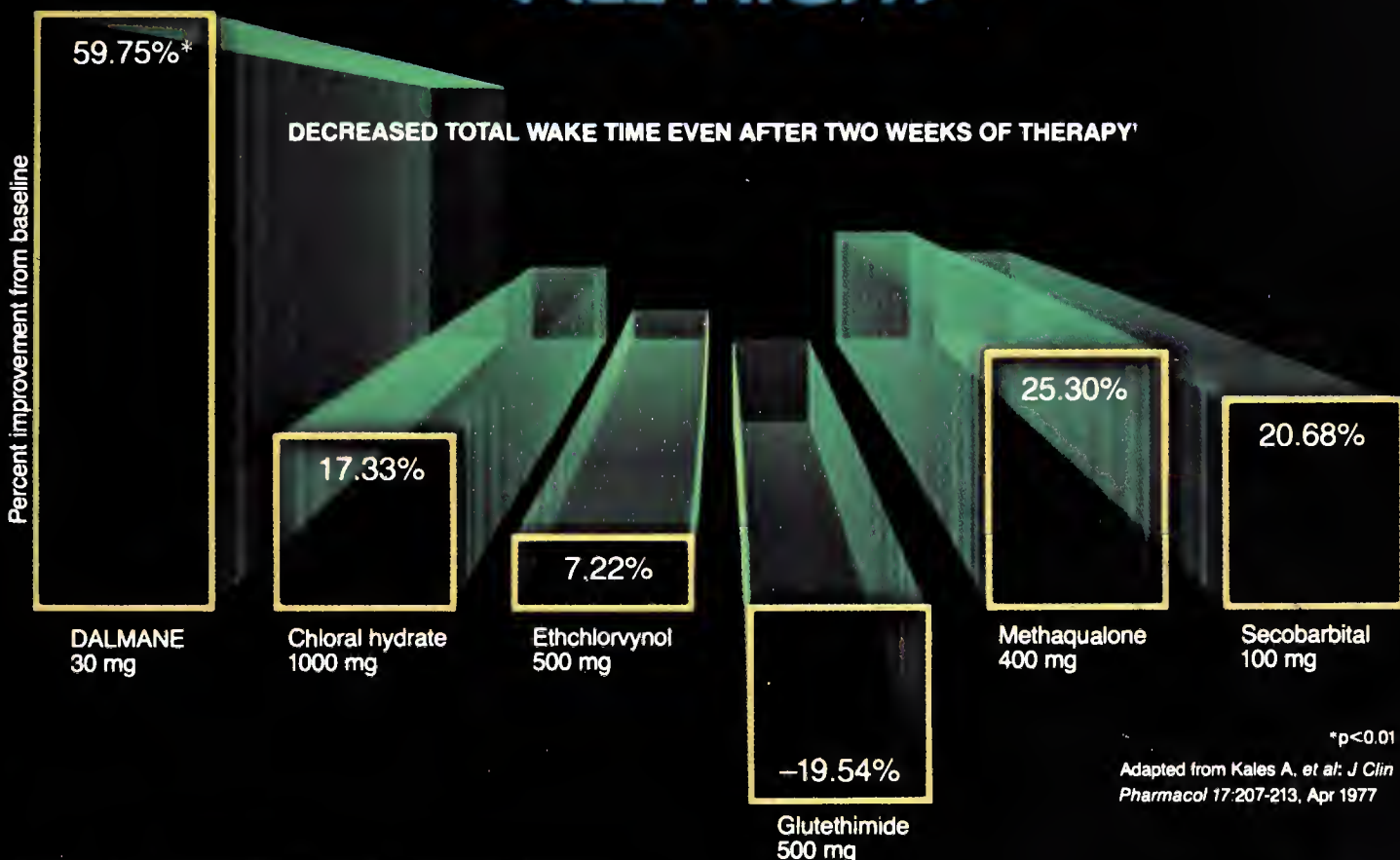
Kaste *et al*⁵ studied 53 patients with acute brain damage for EKG changes and the presence of CK-(MB). The authors noted a significant association of both with increased mortality.

All of these studies have significant shortcomings. The results are conflicting as to the prognostic significance of EKG abnormalities and cardiac enzyme elevations in acute cerebrovascular disorders. No specific EKG changes are diagnostic of a particular cerebrovascular event. EKG changes may rarely occur in the absence of myocardial ischemia or infarction. The etiology of the EKG changes is still a matter of speculation. EKG changes have been observed during manipulation of the circle of Willis during neurosurgical procedures and in animals subjected to CNS and vagal stimulation or catecholamine infusion.³ On the other hand, CK-(MB) in patients with stroke originates from cardiac muscle and not from damaged brain.^{6, 7} The most plausible approach views the EKG and cardiac enzyme abnormalities as resulting from an interplay of excessive sympathetic outflow or other autonomic imbalance with underlying arteriosclerotic (small vessel) and hypertensive (congestive failure-type) cardiovascular disease. Clinically, these studies support the practice of cardiac monitoring in patients with acute cerebrovascular events and indicate the need to investigate for myocardial infarction when EKG abnormalities occur at presentation. Rarely, EKG abnormalities may occur without demonstrable cardiac pathology and must be attributed to the insult to the central nervous system.

References

- ¹ Norris JW, Hachinski VC, Myers MG, Callow J, Wong T, Moore RW: Serum cardiac enzymes in stroke. *Stroke* 10:548-553, 1979.
- ² Goldstein DS: The electrocardiogram in stroke: relationship to pathophysiologic type and comparison with prior tracings. *Stroke* 10:253-259, 1979.
- ³ Dinant J, Grob D: Electrocardiographic changes and myocardial damage in patients with acute cerebrovascular accidents. *Stroke* 8:448-455, 1977.
- ⁴ Lavy S, Yaar I, Melamed E, Stern S: The effect of acute stroke on cardiac functions as observed in an intensive stroke care unit. *Stroke* 5:775-780, 1974.
- ⁵ Kaste M, Somer H, Kontinen A: Heart type creatine kinase isoenzyme (CKMB) in acute cerebral disorders. *Br Heart J* 40:802-805, 1978.
- ⁶ Lisak RP, Graig FA: Lack of diagnostic value of creatine phosphokinase assay in spinal fluid. *JAMA* 199:160-161, 1969.
- ⁷ Dubo H, Park DC, Pennington RJT, Kalbag RM, Walton JN: Serum-creatine-kinase in cases of stroke, head injury and meningitis. *Lancet* 2:743-748, 1967.

EFFECTIVE ALL NIGHT



WITH AN UNSURPASSED RECORD OF EFFICACY AND SAFETY

The efficacy of Dalmane (flurazepam HCl/Roche) has been documented in 185 studies involving 9141 patients suffering from one or more of the three major forms of insomnia—difficulty falling asleep, staying asleep and sleeping long enough.²

Relative safety was demonstrated in a large study of 2542 hospitalized medical patients. Only 3.1% of these patients reported adverse reactions—predominantly unwanted residual drowsiness. None of the reactions were considered serious by attending physicians.³

FOR SLEEP WITHIN 17 MINUTES² AND NO WORSENING OF SLEEP ON DISCONTINUATION

Rapid sleep induction, within 17 minutes on average, sets the stage for insomnia relief. And, after discontinuation of Dalmane for periods ranging up to 14 nights, no worsening of sleep compared with baseline was observed.⁴

Should insomnia recur, the patient may require guidance in setting up a regular sleep program to help

provide the optimum environment for the onset of natural sleep. If hypnotic therapy is required, it should be given for the shortest time at the lowest effective dose to achieve the desired goal.

Consider other medications the patient may be taking (including alcoholic beverages) and be aware of possible drug interactions. Please note that patients should be treated for underlying physical or psychological factors before therapy with a sleep medication is undertaken.

DALMANE[®]
flurazepam HCl/Roche
**THE STANDARD OF HYPNOTIC EFFICACY
FROM THE LEADER IN SLEEP RESEARCH**



Please see reverse side for a summary of product information.

EFFECTIVE ALL NIGHT



SLEEP-SPECIFIC **DALMANE**[®] flurazepam HCl/Roche

One 15-mg capsule h.s.—recommended initial dosage
for elderly or debilitated patients.
One 30-mg capsule h.s.—usual adult dosage
(15 mg may suffice in some patients)

THE STANDARD FOR HYPNOTIC EFFICACY WITH IMPORTANT ADDED BENEFITS

- Well tolerated²
- No chemical interference with many commonly ordered laboratory tests, including triglycerides, uric acid, glucose, SGOT, alkaline phosphatase and total protein^{5*} (See adverse reactions section of complete product information.)
- Compatible with chronic warfarin therapy; no unacceptable fluctuation in prothrombin time reported^{7,8}

UNLIKE NONSPECIFIC MEDICATIONS USED FOR SLEEP

Tricyclic antidepressants

- which are *not* sleep specific,⁹ yet are sometimes used in nondepressed patients for sleep
- which can cause transient insomnia in the elderly¹⁰
- which can require careful monitoring in cardiovascular patients¹⁰
- which have strong anticholinergic effects¹⁰

Antihistamines

- which are *not* reliable sleep-inducing agents¹¹
- which may produce stimulation instead¹¹
- which have anticholinergic effects¹¹

Major tranquilizers

- whose side effects may be troublesome for nonpsychotic patients¹²
- where tolerance for sedation appears rapidly¹²

Dalmane does not cause significant worsening of sleep beyond baseline levels upon discontinuation.⁴

References: 1. Kales A, et al. *J Clin Pharmacol* 17:207-213, Apr 1977. 2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ. 3. Greenblatt DJ, Allen MD, Shader RI. *Clin Pharmacol Ther* 21:355-361, Mar 1977. 4. Kales A, et al. *Clin Pharmacol Ther* 18:356-363, Sep 1975. 5. Moore JD, Weissman L. *J Clin Pharmacol* 16:241-244, May-Jun 1976. 6. Spiegel HE. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ. 7. Robinson DS, Amidon EL. Interaction of benzodiazepines with warfarin in man, in *The Benzodiazepines*, edited by Garattini S, Mussini E, Randall LO. New York, Raven Press, 1973, pp 641-646. 8. Warfarin Study. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ. 9. Baldessarini RJ. Drugs and the treatment of psychiatric disorders, chap. 19, in Goodman and Gilman's *The Pharmacological Basis of Therapeutics*, ed 6. New York, Macmillan Publishing Co. Inc., 1980, pp 391-447. 10. Cole JO, Davis JM. Antidepressant drugs, chap 31.2, in *Comprehensive Textbook of Psychiatry II*, edited by Freedman AM, Kaplan HI, Sadock BJ, ed 2. Baltimore, The Williams & Wilkins Company, vol 2, 1976, pp 1941-1956. 11. Douglas WW. Histamine and 5-hydroxytryptamine (serotonin) and their antagonists, chap 26, in Goodman and Gilman's *The Pharmacological Basis of Therapeutics*, ed 6. New York, Macmillan Publishing Co. Inc., 1980, pp 609-646. 12. Davis JM, Cole JO. Antipsychotic drugs, chap 31.1, in *Comprehensive Textbook of Psychiatry II*, edited by Freedman AM, Kaplan HI, Sadock BJ, ed 2. Baltimore, The Williams & Wilkins Company, vol 2, 1976, pp 1921-1940.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



ROCHE PRODUCTS INC
Manati, Puerto Rico 00701

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*"To Some People We're
More Than A Service."*

EXPERTS
IN
OFFICE DESIGN
& SPACE
PLANNING



National Business Interiors

A Division of National Office Supply Co.

36 Branch Ave., Providence, R.I. 02904 (Branch Ave. Exit Rt. 95)
401-274-9000

**HEALTH HAVENS
NURSING HOME**

East Providence

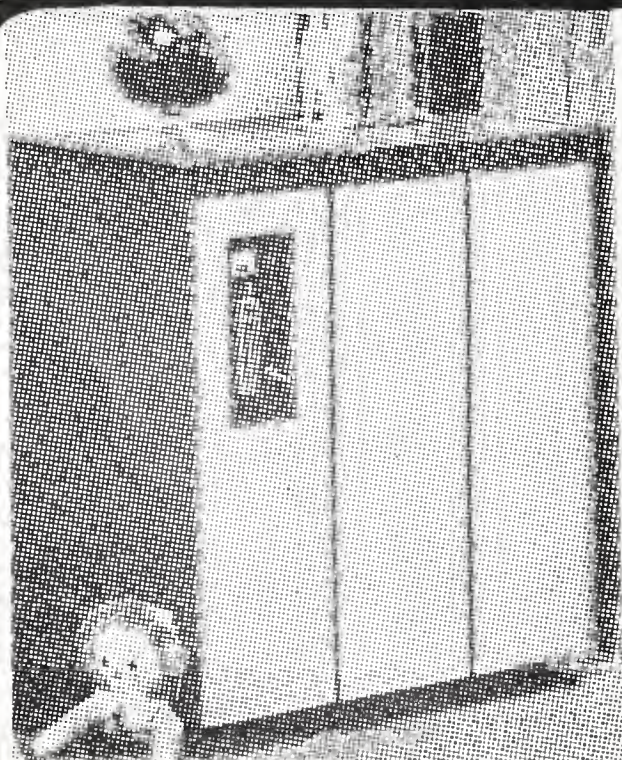
MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500



A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

Briox.
the new, safe
concept in oxygen
for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

685 Park Ave.
Cranston
(401) 781-2166

Respiratory Distress and Severe Cyanosis in a Full Term Neonate

Mary Ann Passero, MD
Richard Frates, MD
Don B. Singer, MD

The following is the clinical history of the subject of this conference:

The baby girl was the product of a full-term pregnancy. The mother was 25 years old, gravida 3, para 2, abortion 0. The mother had blood group O, Rh positive. VDRL test was negative and she was rubella immune. Weight gain and fundal growth were normal and there were no problems with increased blood pressure, diabetes, or edema. She took no medications during the pregnancy. She was admitted to Women & Infants Hospital two hours prior to delivery in active labor and had artificial rupture of membranes with clear fluid. Good fetal heart sounds were heard throughout the labor; 30 minutes prior to delivery, she was given Demerol® 50 mg and Sparine® (promazine) 25 mg. Local anesthesia was used for delivery.

The infant was initially flaccid and cyanotic but at 30 seconds had a good cry and respiratory effort. Because of persistent cyanosis at one minute of age, the pediatric house officer was called to see the patient. Narcan® was given, and 100 per cent oxygen was administered by bag compression. She became bradycardic and was intubated. Bicarbonate and atropine were given via a venous umbilical

catheter with good recovery of the heart rate but continued cyanosis. Apgar scores at one and 5 minutes were 3 and 3.

On admission to the neonatal intensive care unit, the physical findings were consistent with a term female infant. Her weight was 3.12 kg, temperature 96°F, respiratory rate was 30, and heart rate was 134 per minute. Physical examination was within normal limits except for the following significant findings: chest — poor breath sounds bilaterally; heart — regular rhythm without murmur; abdomen — liver enlarged; pulse — diminished.

The child was placed on a respirator at a rate of 30 per minute, FiO₂ 100 per cent and pressures 25/5 cm of water. Blood cultures were obtained and antibiotics given. The child remained hypoxic and acidotic despite maximal respiratory support. She became bradycardic at 3 hours of age and expired at 4 hours of age.

Chest x-ray film showed a coarse reticular granular pattern with emphysematous changes at one hour of age. Hemoglobin was 17.9 g/dl, white blood count 16,000 per cu mm with 40 per cent segmented neutrophils, 3 per cent bands, 43 per cent lymphocytes, 2 per cent monocytes, 3 per cent eosinophils. Electrolytes were normal as was the electrocardiogram. For a summary of respiratory care see Table 1.

Discussion

Dr. Mary Ann Passero: This case discussion should begin with the causes of perinatal cyanosis. When a neonate presents with cyanosis, the differential diagnoses would include the conditions listed in Table 2.¹ Some of these conditions can be eliminated immediately. In methemoglobinemia there is cyanosis but no reduction in the pO₂. In this case, partial pressure of oxygen was profoundly depressed. Another condition that can be eliminated with fair certainty is hypoglycemia. The protocol surely would have mentioned it, if there had been reduction of blood sugar; and, in any case, hypoglycemia does not usually produce profound cyanosis. Polycythemia can be eliminated from consideration on the basis of the hematocrits.

Mechanical obstruction to air flow due to thick

This is one of a series of Clinical-Pathologic Conferences conducted under the aegis of the Section of Pathology, Brown University Program in Medicine, Providence, Rhode Island.

Mary Ann Passero, MD, Director, Division of Pediatric Pulmonary Diseases, Rhode Island Hospital, Providence, Rhode Island; Assistant Professor of Pediatrics, Brown University Program in Medicine, Providence, Rhode Island.

Richard Frates, MD, Director, Department of Radiology, Women & Infants Hospital, Providence, Rhode Island.

Don B. Singer, MD, Chief of Pathology and Laboratory Medicine, Women & Infants Hospital, Providence, Rhode Island; Professor of Pathology, Brown University Program in Medicine, Providence, Rhode Island.

Table 1. Summary of respiratory care to full term neonate with respiratory distress and severe cyanosis.

Time	pH	pCO ₂	pO ₂	B.E.
3:00 am	6.87	72	21-22	Na Bicarbonate 3mEq/kg
3:15	7.067	78	30-10	↑ Press. 40/5 Priscoline 1 mg/kg push- No change in color or T _c O ₂ monitor
4:30	7.074	50	18-16	↑ Press. to 52/5 Bicarbonate 2mEq/kg Priscoline 2 mg/kg push- No change seen
5:30	7.010	54	19-18.7	Bradycardia
Child expired at 6:00 am				

Table 2. Differential diagnosis for perinatal cyanosis.

- 1) Congenital heart disease, cyanotic type
- 2) Primary lung disease
- 3) Mechanical obstruction to air flow
- 4) Pulmonary hypertension
- 5) Central nervous system disease with hypoventilation
- 6) Methemoglobinemia
- 7) Hypoglycemia with hypoventilation and pulmonary failure
- 8) Polycythemia
- 9) Shock and sepsis

mucus or a meconium plug in the trachea or in large bronchi is not likely, since no abnormal secretions were observed when the endotracheal tube was placed. Meconium staining is not mentioned and clear amniotic fluid was described at the time of delivery. Anomalies of the upper airway and hypopharynx and oropharynx, Pierre-Robin Syndrome, a symptomatic vascular ring, tracheal stenosis, and laryngeal stenosis were eliminated from consideration by the physical examination and by the ease of intubation. The chest x-ray study excludes diaphragmatic hernia, chylothorax, lobar emphysema, pneumothorax, and diffuse mucous plugging of airways.

We should turn our attention to the central nervous system. Intracranial hemorrhage or other intracranial disease can result in central depression of ventilation. Depression of the central nervous system (CNS) can occur if the mother is given analgesics just prior to delivery. Rapid placental transfer and slower fetal metabolism produce higher concentrations of Demerol® in

the baby than in the mother who received the drug. For this reason, Narcan® was given in this case with no improvement. Hypoventilation secondary to any CNS disease should respond to oxygen and mechanical ventilation. This child's poor response to supportive therapy makes CNS disease unlikely.

What about primary lung disease? Pneumonia with such a rapidly fatal course would have to be intrauterine in origin. The mother was healthy, and the membranes ruptured only two hours prior to delivery with clear fluid released. Subtle infection in the mother could have been undetected and yet produced severe sepsis or pneumonia in the newborn, but I don't believe this is likely in this case.

Most primary lung diseases such as hyaline membrane disease, congenital malformations of the lung, pulmonary hemorrhage, or severe pneumonia can produce severe hypoxia and hypercapnia, but improvement is expected when 100 per cent oxygen is administered with adequate mechanical ventilation. This child showed no such improvement. A few rare malformations of the lung can produce such diffuse and complete involvement of the organ that almost no functional lung tissue remains. These rare conditions include severe pulmonary hypoplasia, agenesis, adenomatoid malformation, and congenital lymphangiectasia.²

Congenital heart disease and pulmonary hypertension must be considered. Cyanotic heart disease usually has a more insidious onset with respiratory distress after many hours or days. In this case the onset of symptoms was immediate. For a neonate with cyanotic heart disease to be this sick so quickly would be unusual, especially with a normal electrocardiogram.³ The poor response to 100 per cent oxygen is compatible with cyanotic heart disease, but the associated severe hypercapnia is unusual. The chest x-ray study shows neither decreased pulmonary flow nor a large heart. No murmur was heard. I assume that all the blood gas determinations were obtained from the umbilical artery. A radial arterial pO₂ would have helped demonstrate a right-to-left shunt through the ductus arteriosus. With the information available, cyanotic congenital heart disease remains a possible diagnosis.

We should also consider primary pulmonary hypertension, leading to the syndrome of persistent fetal circulation (PFC).⁴ This syndrome usually occurs in infants who are appropriate for gestational age and full-term. For some reason, it is more common in females than in males. The

pathophysiology includes persistent patency of the foramen ovale and the ductus arteriosus with a right-to-left shunt across these patent structures. X-ray studies are sometimes helpful, but may be indistinguishable from normal. A murmur is not necessarily present. Acidosis and hypoxia promote vasospasm in small pulmonary arterioles and produce secondary pulmonary hypertension. A vicious cycle is established whereby acidosis and hypoxia are accentuated. The cycle may be broken with bicarbonate therapy reducing acidosis. Priscoline® may relieve pulmonary vasospasm, but usually works better if given directly into the pulmonary arteries. In PFC, the electrocardiogram may be normal, and the mean blood pressure may also be normal. However, most infants with persistent fetal circulation have a history of some preceding event or circumstance which initiates the cycle; e.g., diaphragmatic hernia or an episode of perinatal asphyxia. It is also unusual for the shunting to be as profound as to lead to hypercapnia.

I believe this patient had severe pulmonary disease. It would be helpful at this time to see if the x-ray films of the chest were of help in the differential diagnosis, which at this point includes persistent fetal circulation, the possibility of congenital heart disease, lymphangiectasia, and possible infection.

Dr. Richard Frates: The anterior posterior projection of the chest film shows peripheral coarse granular densities which are individual and easily distinguished from one another (Fig. 1). One point is that they are not linear. There is also evidence of emphysema in a focal distribution. In the second film taken a few hours later, the baby is intubated. The tube is in place in the chest cavity. Vessels with thin walls could produce the coarse granular appearance we see in the lung fields. There is a small heart in this case.

Dr. Passero: Now that we've had the opportunity to view the radiographs, I think we can postulate a rare condition that could produce the severe symptoms this baby had; namely, pulmonary lymphangiectasia. In most instances, in pulmonary lymphangiectasia, there is an associated cardiac defect with obstruction to pulmonary venous flow. I wouldn't care to speculate on the exact cardiac defect.

Brown Medical Students: The consensus among the medical students was that the patient had pulmonary lymphangiectasia based on the more thorough descriptions of the x-ray studies available to us. The cardiac defect is presumed to be primary.



Figure 1. Chest x-ray shows non-linear peripheral coarse granular densities in the lung.



Figure 2. The pleural surfaces of the lung have raised vesicles 1-2 mm in diameter. These are dilated pleural lymphatic vessels.

Dr. Don B. Singer: The autopsy disclosed a full-term infant with acrocyanosis, but no other distinguishing features on external examination. The lungs were heavy, bright red, and had a peculiar pebbled surface with myriads of minute fluid-containing raised vesicles (Fig. 2). On section the lungs were solid and deep red. A pneumothorax was present bilaterally.



Figure 3. Total anomalous pulmonary venous drainage viewed from postero-superiorly. The "X" shaped structure is the confluence of the four major pulmonary veins. The vessels forming the inverted "V" are the normal pulmonary arteries. The black suture passes under a tributary leading from the anomalous confluence to ever smaller mediastinal and pleural systemic veins.

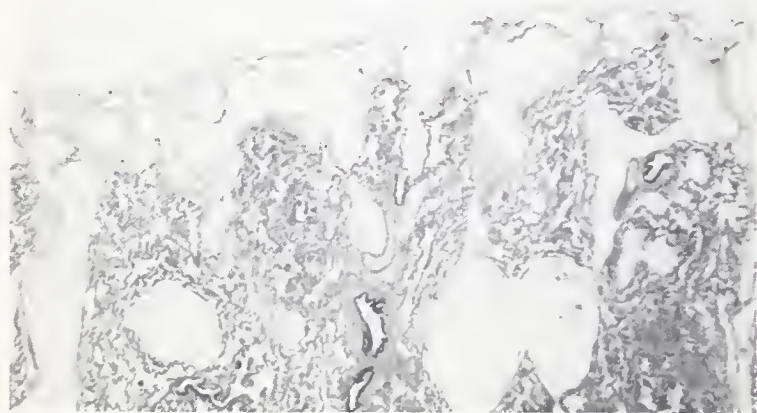


Figure 4. Microscopic view of dilated pleural lymphatic vessels which tend to compensate for obstructed pulmonary venous obstruction.

The systemic vessels leading to and from the heart were all normal, but the pulmonary veins did not join the posterolateral walls of the left atrium. They joined one another to form an X shaped confluence of pulmonary veins (Fig. 3). Venous channels led from the center of the confluence superiorly and inferiorly, but none entered the left atrium. Within 3 cm of the confluence, these veins led to tiny sclerotic vessels which drained caudally and cephalad into smaller thickened pleural and mediastinal veins. The pulmonary venous drainage was obstructed at these tiny systemic veins. In consequence, the venous pressure in the lungs was markedly elevated producing interstitial edema as well as intra-alveolar edema. The development of interstitial edema in utero over the last months of gestation promoted the secondary development of lymphangiectasia (Fig. 4).⁵

No compensating shunts allowed oxygenated pulmonary venous blood to flow either to the right or left sides of the circulation. The baby suffered a rapid and severe onset of hypoxia that quickly led to death.

This is one of the more rare forms of total anomalous pulmonary venous drainage.⁶ Most are compatible with longer life than we found with this patient.

Final Diagnosis

- 1) Total anomalous pulmonary venous drainage to small systemic veins.
- 2) Pulmonary lymphangiectasia.
- 3) Pneumothorax.

References

- ¹ Epstein MF, Morton JR, Lang P: Cardiac disease, in Cloherty JP, Stark AR (eds). *Manual of Neonatal Care*. Boston, Little-Brown, 1980, pp 185-192.
- ² Stocker JT, Drake RM, Madewell JE: Cystic and congenital lung disease in the newborn, in Rosenberg HS, Bolande RP (eds): *Perspectives in Pediatric Pathology*. Chicago, Year Book, 1978, vol 4, pp 144-148.
- ³ Liebman J, Plonsey R: Electrocardiography, in Moss AJ, Adams FH (eds): *Heart Disease in Infants, Children, and Adolescents*, ed 2. Baltimore, Williams & Wilkins, 1977, chap 3.
- ⁴ Gersony WM: Persistence of the fetal circulation: a commentary. *J Pediatr* 82:1103-1106, Jun 73.
- ⁵ Burroughs JT, Edwards JE: Total anomalous pulmonary venous connection. *Am Heart J* 59:913-931 Jun 60.
- ⁶ Lucas RV Jr, Schmidt RE: Anomalous venous connection, pulmonary and systemic, in Moss AJ, Adams FH (eds): *Heart Disease in Infants, Children, and Adolescents*, ed 2. Baltimore, Williams & Wilkins, 1977, pp 437-469.

Don B. Singer, MD
Department of Pathology
Women & Infants Hospital
50 Maude Street
Providence, RI 02908

The Mallory-Weiss Syndrome in the Pediatric Population

Rare Condition in Children Should Be Considered in the Presence of Hematemesis

Peter P. Yu, MD
Deborah White, MD
Edward A. Iannuccilli, MD, FACP

It is now more than fifty years since the first description of upper gastrointestinal hemorrhage from a mucosal laceration at or near the gastroesophageal junction.¹ However, as a result of more frequent endoscopic evaluations the frequency and presentation of the Mallory-Weiss syndrome have begun to unfold. Although endoscopy is an accepted procedure in the evaluation of upper gastrointestinal bleeding in adults, its use in the pediatric population is infrequently reported. Herein is a case report of a child with Mallory-Weiss syndrome whose management was expedited by endoscopic evaluation.

Case Report

A 13-year-old black male with chronic renal failure secondary to obstructive uropathy presented at the hospital with the complaint of left upper quadrant pain and hematemesis which occurred during hemodialysis. One week prior to admission, while on dialysis, the patient vomited approximately 500 ml. of coffee ground material. Nausea, vomiting, and dull epigastric pain unrelated to meals or position complicated the dialysis sessions for ten days prior to his admission. Because of a hematocrit drop from 19 to 16, the patient

From the Department of Medicine, Division of Gastroenterology, Rhode Island Hospital and Brown University Program in Medicine, Providence, Rhode Island.

Peter P. Yu, MD and Deborah White, MD, are former students in the Brown University Program in Medicine, Providence, Rhode Island.

Edward A. Iannuccilli, MD, Director, Department of Medical Education, Rhode Island Hospital, Providence, Rhode Island; Clinical Associate Professor, Brown University Program in Medicine, Providence, Rhode Island.

was transfused with two units of packed red blood cells and admitted. The nausea resolved with appropriate changes in dialysis technique.

On the evening of admission, the patient again experienced left upper quadrant pain with hematemesis. He had been complaining of nausea and vomiting in the preceding 24 hours, but very little retching. There was no recent history of alcohol, salicylate, steroid, or azathiaprine use. Past history included a partial parathyroidectomy for control of renal related bone disease and rejected maternal renal allotransplant.

Physical examination revealed a child below the 10th percentile of height and weight and in no apparent distress. Vital signs were stable without orthostatic blood pressure changes. Physical examination was remarkable only for several well healed surgical scars, a nonfunctioning ileal loop, and a left thigh bovine graft scar. Bowel sounds were normoactive, and the abdomen was scaphoid without tenderness or rebound. The overall liver span was 5 cm to percussion. No masses or splenomegaly were noted. Stools were positive for occult blood.

Initial laboratory values revealed a hemoglobin of 7.5 grams and hematocrit of 22.3 with normal indices. Platelet count was 215,000 and white blood count was 6,400 with a normal differential. Prothrombin activity was 91 per cent. An upper gastrointestinal series was normal.

The patient was esophagogastroscooped under general anesthesia with the Olympus pediatric instrument within 36 hours of admission. A 2 cm actively bleeding vertical tear was noted on the gastric side of the gastroesophageal junction. No other mucosal lesions were noted. The remainder of the stomach, esophagus, and duodenum were normal. A surgical consultation was obtained, but only conservative supportive management was required.

Discussion

Mallory-Weiss tears presumably result from an increase in intraluminal and transmural pressure during emesis. These tears are often associated with a hiatal hernia either antecedent or coproduced during the emesis,² and are usually vertical as a function of the physical law which states that the tension required to produce a tear in the vertical direction is one-half of that required to produce a tear in the horizontal direction.³ Simi-

larly, because the mucosal wall is weakest where the diameter is greatest, Mallory-Weiss tears are most often of the gastric mucosa.⁴ The exact location of the tear correlates significantly with the presence or absence of a hiatal hernia, i.e. a gastric tear being found only rarely without an associated hiatal hernia.² The incidence of the lesion in adult patients presenting with upper gastrointestinal bleeding has been reported to be as high as 16.7 per cent;⁵ but the syndrome was not easily detected because endoscopy was not often used previously. The classic presentation of hematemesis after repeated retching in an adult alcoholic male is more often the exception rather than the rule. In Graham's and Schwartz' review of the Mallory-Weiss syndrome, only 29 per cent of the patients gave a history of retching prior to hemorrhage, and only 60 per cent were alcoholics.³ While hematemesis on the first episode was most common, other presentations included melena, fainting, and abdominal pain. Since Mallory-Weiss tears are superficial lesions, they rarely have associated radiographic findings. Further complicating the diagnosis is the likelihood that by 72 hours sufficient healing will have occurred to obscure endoscopic identification of the lesion.³

It is now apparent that much of what was believed in the past about the Mallory-Weiss syndrome has been disproved. This syndrome is now considered the third most common cause of upper gastrointestinal hemorrhage in adults. In the pediatric population, as in the adult, endoscopic examination has confirmed that peptic ulcer and gastritis are also the two most often encountered causes of upper gastrointestinal hemorrhage.^{7, 8} However, Ament, et al reported that one-third of pediatric patients with hematemesis or melena remain undiagnosed primarily because of the limited use of endoscopy as a diagnostic tool in this population.⁷

To date there have been only four other proven cases of the Mallory-Weiss syndrome reported in children less than 18 years of age.^{6, 9-11} The difficulty in performing endoscopic procedures in children may account for this paucity. However, two reports totaling 45 pediatric patients endoscoped for evaluation of upper gastrointestinal hemorrhage failed to demonstrate the Mallory-Weiss syndrome.^{7, 8} A report of the Mallory-Weiss lesion in identical twins raises the possibility of congenital defects such as foreshortening of the esophagus or diaphragmatic defects as predisposing factors in the production

of a Mallory-Weiss tear in the pediatric population.¹² A bleeding diathesis, reported previously as a predisposing cause,¹³ was not present in our patient.

Finally, we note that our patient responded to supportive medical treatment alone, confirming the experience of others that the Mallory-Weiss tear will usually cease active bleeding without recourse to surgery.^{3, 5}

A reasonable index of suspicion combined with early endoscopy in pediatric patients with upper gastrointestinal hemorrhage will be necessary to uncover the true incidence of the Mallory-Weiss syndrome in the pediatric age group.

Summary

A case report of a 13-year-old patient with Mallory-Weiss syndrome and a review of the literature regarding this syndrome in the pediatric population are presented.

References

- 1 Mallory GK, Weiss S: Hemorrhages from lacerations of the cardiac orifice of the stomach due to vomiting. *Am J Med Sci* 178:506-515, Oct 29.
- 2 Watts HD: Lesions brought on by vomiting: the effect of hiatus hernia on the site of injury. *Gastroenterology* 71:683-688, Oct 76.
- 3 Graham DY, Schwartz JT: The spectrum of the Mallory Weiss tear. *Medicine* 57:307-318, Jul 78.
- 4 Quigley JP, Brudv DA: Digestive tract: Intraluminal pressures, gastrointestinal propulsion, gastric evacuation, pressure-wall tension relationships, in Glasser O (ed): *Medical Physics*. Chicago, Year Book 1950, pp 280.
- 5 Foster DN, Miloszewski K, Losowsky MS: Diagnosis of Mallory-Weiss lesions: a common cause of UGI bleeding. *Lancet* 2:483-485, 4 Sep 76.
- 6 Clain JE, Novis BH, Barhezat GO, et al: Mallory-Weiss Syndrome, a prospective study in the 130 patients. *S Afr Med J* 53:115:596-597, 15 Apr 78.
- 7 Ament ME, Gans SL, Christie DL: Experience with esophago-gastroduodenoscopy in the diagnosis of 79 pediatric patients with hematemesis, melena, or chronic abdominal pain. *Gastroenterology* 68:858, Apr 75.
- 8 Tedesco FJ, Goldstein PD, Gleason WA, et al: Upper gastrointestinal endoscopy in the pediatric patient. *Gastroenterology* 70:492-494, Apr 76.
- 9 Lamiell JM, Weyandt TB: Mallory-Weiss Syndrome in two children. *J Pediatr* 92:583-584, Apr 78.
- 10 Holmes KD: Mallory-Weiss Syndrome: review of 20 cases and literature review. *Ann Surg* 164:810-820, Nov 66.
- 11 Knauer CM: Mallory-Weiss Syndrome, characterization of 75 Mallory-Weiss lacerations in 528 patients with upper gastrointestinal hemorrhage. *Gastroenterology* 71:5-8, Jul 76.
- 12 Wright RA: Mallory-Weiss lesion in identical twins (letter). *N Engl J Med* 300:201-202, 25 Jan 79.
- 13 Hellers G, Ewerth S, Ihre I, Lahnborg G: The Mallory-Weiss Syndrome, a review of 23 cases with special reference to coagulation defects. *Acta Chir Scand (suppl)* 482:9-11, 1978.

Edward A. Iannuccilli, MD
Rhode Island Hospital
Department of Medicine
Providence, RI 02902

Thyrotoxic Subacute Thyroiditis Associated with Hepatitis

Pathogenic Relationship Between the Disorders Is Not Clear

Tom J. Wachtel, MD

Abnormalities of hepatic function have recently been reported in association with subacute thyroiditis.¹ However, all of the patients were thyrotoxic, and abnormal liver function testing is known to occur in thyrotoxicosis.^{2, 3} The degree of hepatic dysfunction does not correlate with the degree of hyperthyroidism, and its pattern is one of cholestasis with little evidence of hepatocellular necrosis.^{3, 4} We observed a patient with severe subacute thyroiditis and thyrotoxicosis chronologically associated with hepatic involvement, which clinically and biochemically behaved like infectious hepatitis.

Case Report

A 46-year-old white woman presented complaining of a sore throat and fever for six days. Diaphoresis, palpitations, nervousness, and tremor were noted. There was no history of drug or alcohol intake nor of exposure to hepatitis.

Physical examination was remarkable for a pulse of 96 and temperature of 101.4F. She had a diffusely enlarged and tender thyroid gland. The liver was enlarged with a smooth tender edge.

Laboratory results are presented in Table 1 and Figure 1. Fractionation of the alkaline phosphatase revealed it to be exclusively of hepatic origin. Hepatitis B surface antigen, hepatitis B surface antibody, hepatitis B core antibody, ox cell hemolysin, antithyroid antibodies, viral titers for cytomegalovirus (by complement fixation and immunofluorescence) and respiratory viruses (by complement fixation) were negative. Radioactive iodine uptake was 0.6 per cent. Liver-spleen scan and abdominal ultrasound studies were normal. The patient remained febrile with symptoms of thyrotoxic thyroidi-

tis and worsening of her biochemical abnormalities until the 10th hospital day when steroid therapy was begun. Progressive resolution of the disease occurred over the following two weeks.

Discussion

Subacute thyroiditis also known as De Quervain's thyroiditis, granulomatous thyroiditis or giant cell thyroiditis is a well-defined clinical entity.^{5, 6} The onset is sudden, sometimes preceded by a viral infection. Most patients present with weakness, malaise, fever, sore throat, and anterior neck pain; an enlarged tender thyroid is almost universally found on physical examination.

In 1978 three patients were reported with thyrotoxic subacute thyroiditis and increased serum alkaline phosphatase.¹ All three patients had borderline increases of transaminase levels leading the authors to argue that the elevation of the alkaline phosphatase was of hepatic origin.

Liver damage in thyrotoxicosis has been described repeatedly in the medical literature with an estimated frequency of 15 to 90 per cent.^{2, 3} Histopathological findings consist of hepatocytic cytoplasmic clarification and vacuolization, nuclear alterations, steatosis, round cell infiltration, increased portal connective tissue, and engorgement of the central vein.² An ultrastructural study reported megamitochondria and hypertrophy of the smooth endoplasmic reticulum.⁷ Whether these hepatic changes are caused by thyroxine or are secondary to a metabolic alteration of the hyperthyroid state is unknown. Other studies denied any significant histologic alteration of the liver in thyrotoxic patients.^{8, 9}

The matter of elevated alkaline phosphatase in

Tom J. Wachtel, MD, Department of Ambulatory Care, Rhode Island Hospital, Providence, Rhode Island; Instructor, Community Medicine, Brown University Program in Medicine, Providence, Rhode Island.

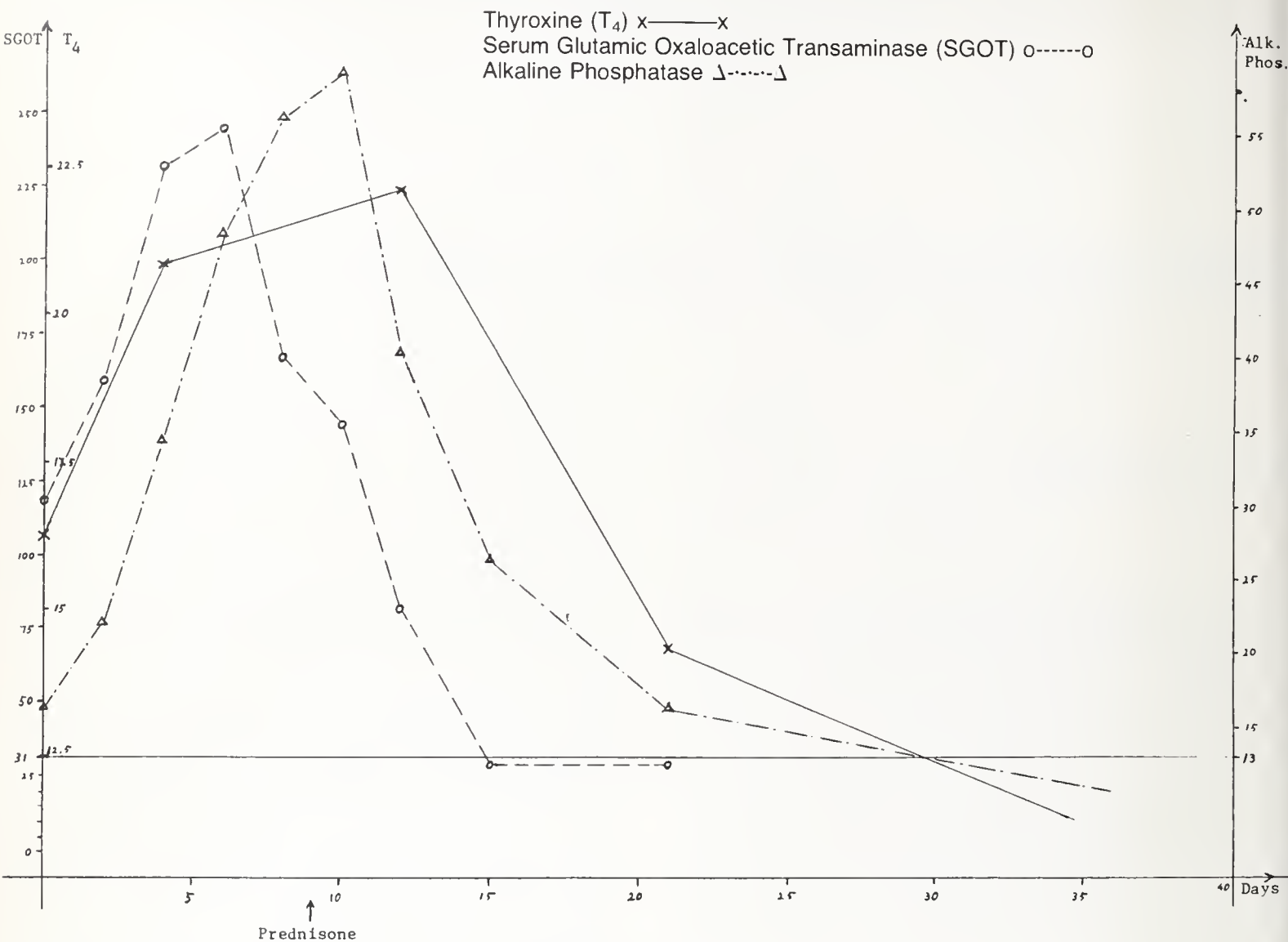


Figure 1. Temporal Progression of T₄, SGOT and Alkaline Phosphatase

Table 1. Laboratory Results from Patient with Thyrotoxic Subacute Thyroiditis

Day	WESR	SGOT	SGPT	Alkaline Phosphatase	Total Bilirubin	Calcium	T ₄	RT ₃ U	Pro-thrombine Time
Normal Values	0-20mm/hr	5-31 lu/l	5-31 lu/l	4-13.0 lu/dl	0.2-1.0mg/dl	8.4-10.4 mg/dl	5.0-12.5 mcg/dl	25-34%	
1	85	119		17.5	0.5	9.7	16.3	30.7%	29.7 sec (patient)
3		158	204	22	0.4				34 sec (control)
5		231		34.5	0.5		20.8		
7		245		48.7	0.4				
9	112	161	407	56.7	0.4				
11		144		59.2	0.3	9.4			
13		80		40.2	0.2		22.1		
16		28		26.8	0.2				
22		29		16.3	0.2		13.9		
48	22			7.2			8.1		

association with thyrotoxicosis is further complicated by the fact that thyroid hormone has a direct effect on bone.¹⁰ Increased bone resorption secondary to hyperthyroidism can lead to hypercalcemia and elevated alkaline phosphatase. Several studies have demonstrated that when the alkaline phosphatase is elevated in thyrotoxicosis, fractionation reveals the alkaline phosphatase isoenzyme to be of bone origin.¹¹⁻¹³

Our case illustrates a close temporal association between thyrotoxic subacute thyroiditis and "hepatitis," which has not clearly been reported in the past. We are unable to distinguish between a possible common offending agent (eg viral) on both the thyroid gland and the liver, and a direct effect of thyrotoxicosis on hepatic function.

Summary

Subacute thyroiditis is commonly associated with thyrotoxicosis. Abnormalities of hepatic function are known to occur in hyperthyroid patients and have recently been reported in patients with thyrotoxic subacute thyroiditis. We observed a patient with a close temporal relation of thyrotoxic subacute thyroiditis and hepatitis.

References

- ¹ Dalovisio JR, Blonde L, Cortez L, et al: Subacute thyroiditis with increased serum alkaline phosphatase. *Ann Intern Med* 88:505-507, Apr 78.
- ² Dooner HP, Parada J, Aliaga C, et al: The liver in thyrotoxicosis. *Arch Intern Med* 120:25-32, Jul 67.
- ³ Ashkar FS, Miller R, Smcok Wm 3rd, et al: Liver disease in hyperthyroidism. *South Med J* 64:462-465, Apr 71.
- ⁴ Thompson P Jr, Strum D, Boehm T, et al: Abnormalities of liver function tests in thyrotoxicosis. *Milit Med* 143:548-551, Aug 78.
- ⁵ Schultz AL: Subacute diffuse thyroiditis: clinical and laboratory findings in 24 patients and the effect of treatment with adrenal corticoids. *Postgrad Med* 29:76-85, Jan 61.
- ⁶ Green JN: Subacute thyroiditis. *Am J Med* 51:97-108, Jul 71.
- ⁷ Klion F, Segal R, Schaffner F: The effect of altered thyroid function on the ultrastructure of the human liver. *Am J Med* 50:317-324, Mar 71.
- ⁸ Piper J, Poulsen E: Liver biopsy in thyrotoxicosis. *Acta Med Scan* 127:439-447, 1947.
- ⁹ Lorenz G, Meng W: Biopical liver changes in florid hyperthyreosis. *Acta Hepatogastroenterol* 22:22-25, Feb 75.
- ¹⁰ Smith DA, Fraser SA, Wilson GM: Hyperthyroidism and calcium metabolism. *Clin Endocrinol Metabol* 2:333-354, Jul 73.
- ¹¹ Gerlach U, Paul L, Latzel H: Isoenzyme der alkalischen phosphatase bei hyperthyreose. *Enzym Biol Clin* 11:251-256, 1970. (Ger)
- ¹² Richter J, Ohlen J: Hyperthyreose und die isoenzyme der alkalischen phosphatase. *Dtsch Med Wochenschr* 96:196-198, 29 Jan 71. (Ger)
- ¹³ Cooper DS, Kaplan MM, Ridgeway EC, et al: Alkaline phosphatase isoenzyme patterns in hyperthyroidism. *Ann Intern Med* 90:164-168, Feb 79.

Rhode Island Hospital
Providence, RI 02902



CARDIAC REHABILITATION at THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

- following myocardial infarction
- following cardiac surgery
- with stable angina pectoris

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904



evening clinic for alcohol affected families

A state licensed private medical outpatient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

GREENVILLE MEDICAL CENTER

7 SMITH AVE., GREENVILLE, R.I. 02828

Finished office available
Desirable location for Internist,
Family Practitioner, and other
Specialties

401/331-7171

WANTED

Young internist — board certified or board eligible — to join busy Providence internist's practice — leading to partnership or ownership. Send curriculum vitae and references to Rhode Island Medical Journal — Box 2463, 106 Francis Street, Providence, Rhode Island 02903.

Malunion of upper end of femur
See editorial page 99



Illustration: See page 83

CONTRIBUTIONS

Acute Cardiorespiratory Morbidity, Air Quality, Temperature and Pollen Concentration
in Providence, Rhode Island

Clinical Pelvic Anatomy, the Types of Genital Prolapse and the Choice of Operation for Repair

Psychiatric Consultation: When to Request and What to Expect

NEWSLETTER

PRESIDENT'S CORNER

EDITORIALS


EDITOR'S MAILBOX

CURRENT COMMENTARY

REPORT OF THE HOUSE OF DELEGATES

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it does reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM[®] ^{IV}

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

**BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT**



Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500; * Prescription Paks of 50, available in trays of 10 * Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

The NME "establish your practice" benefits package:

- * Over 60 well equipped acute care hospitals.
- * Selected financial assistance.
- * Management consulting.
- * An array of professional service skills and talents to assist you.
- * Locations from coast to coast.

If you're a Primary Care Physician, call for yours today.

For further information, contact:
Raymond C. Pruitt, Director Physician Relations
National Medical Enterprises
11620 Wilshire Blvd., Los Angeles, California 90025.
Call Toll-Free 800-421-7470
or collect (213) 479-5526.

NATIONAL MEDICAL
ENTERPRISES, INC.



"The Total Health Care Company."
An Equal Opportunity Employer M/F

Rhode Island Medical Journal

March 1982

Volume 65, Number 3

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settupane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Paul Calabresi, MD

Herbert Fanger, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

***Peter L. Mathieu, Jr., MD**

Umberto Capuano
Student

*Member of Publications Committee

***Jay M. Orson, MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Charles E. Millard, MD
President

William F. Varr, Jr., MD
Vice President

David R. Hallmann, MD
Secretary

Melvin D. Hoffman, MD
President-Elect

Erminio Cardi, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Peter D. T. Clarisse, MD
Newport County Medical Society

Richard G. Bertini, MD
Pawtucket Medical Association

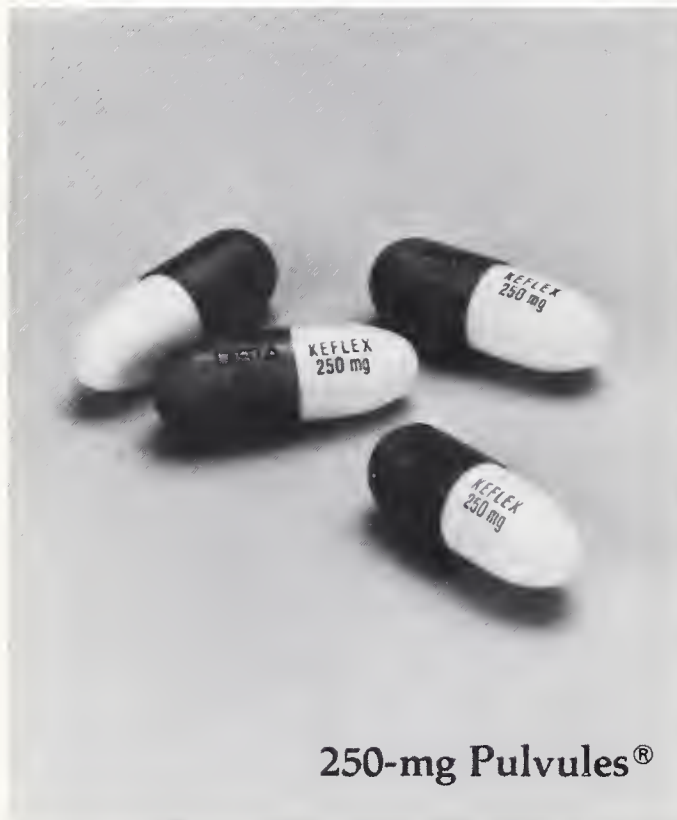
Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Roger J. Fontaine, MD
Woonsocket District Medical Society



easy to take



Keflex®
cephalexin

Additional information available
to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

TABLE OF CONTENTS

87 **NEWSLETTER**

95 **PRESIDENT'S CORNER**

The Facts: Medical Education and Its Costs

99 **EDITORIALS**

Electrical and Electromagnetic Treatment of Nonunion of Fractures
Medical Control for Prehospital Care

101 **EDITOR'S MAILBOX**

Utilization Review of Ancillary Services
Physicians and Health Planners

103 **CURRENT COMMENTARY**

A Uniform Determination of Death Act

105 **REPORT OF THE HOUSE OF DELEGATES**

CONTRIBUTIONS

109 **Acute Cardiorespiratory Morbidity, Air Quality, Temperature and Pollen Concentration in Providence, Rhode Island**

Study Suggests Relationship between Air Pollutants and Temperature and the Incidence of Bronchospasm

Rebecca Silliman, MD Mary Ann Passero, MD David Kaplan, MD Mary Condry, RN
Constance Pass, BS Philip Robzyk, BS Michael Passero, MD

112 **Clinical Pelvic Anatomy, the Types of Genital Prolapse and the Choice of Operation for Repair**

In Most Instances Transvaginal Operation Is Indicated

David H. Nichols, MD, FACS, FACOG

115 **Psychiatric Consultation: When to Request and What to Expect**

Many Tasks Assigned to Psychiatric Consultants Actually Belong in the Armamentarium of the Primary Care Physician

Richard J. Goldberg, MD Craig Van Dyke, MD

COVER

Shows a position of the patient in a case of neglected malunion of the upper end of the femur, from "Orthopedic Surgery" by Robert Jones and Robert W. Lovett, second edition revised, New York, William Wood and Company, 1929.

HOW TO SURVIVE PROSPERITY.

As any business grows, it stands to reason that its prosperity should increase. Unfortunately, this doesn't always happen. Because, very often, busy professionals can ill afford the time necessary for truly effective financial management and record-keeping.

At Levin and Parness, we understand. We're an accounting firm whose business it is to advise people on how to manage their business and personal finances for maximum effectiveness.

We can offer a wide range of services. Everything from setting up financial records to billing procedures to collection techniques. From tax planning to retirement benefits. From income taxes to payroll taxes. And all of our services give you the kinds of tools you need for better planning and maximized opportunities. While making minimal demands on your time and energy.

If you'd like to know more about how we could be useful to you, please call. We'll be happy to analyze your procedures and to suggest improvements.

Then you can quickly tell what your chances are of surviving prosperity long enough to enjoy it.

LEVIN
AND
PARNESS

Levin and Parness, Inc., Certified Public Accountants, 24 Mutual Place, Providence, RI 02906, (401) 273-6650

*Pfizer Laboratories
Announces*

**THE FIRST ORAL
CALCIUM CHANNEL
BLOCKER
FOR THE
MANAGEMENT OF
ANGINA PECTORIS**

NEW
PROCARDIA[®]
(NIFEDIPINE) Capsules 10 mg

Newsletter

March 1982

Charles E. Millard, MD, Editor
Karen Challberg, Associate Editor

PHYSICIANS SAVED COMMUNITY \$20 MILLION IN 1980

A new brochure "Health Care Cost Containment" published by the Rhode Island Medical Society, Blue Cross-Blue Shield of Rhode Island, and the Hospital Association of Rhode Island compares Rhode Island physician fee increases with national all items consumer price index increases from 1978 to 1981. In 1978 the physician fee increase was 5.8 per cent compared with an all items CPI increase of 6.7 per cent; in 1979 it was 6.6 per cent compared with the CPI 9.4 per cent; in 1980 7.8 per cent compared with the CPI 13.3 per cent; in 1981 8.6 per cent compared with the CPI 11.6 per cent. In 1980 alone, it is estimated physicians in Rhode Island saved the community more than \$20 million through voluntary cost containment efforts.

COUNCIL BRIEFS

At the last meeting of the Council held February 8, 1982 it was voted to endorse the recommendations of the Nominations Committee for Rhode Island Medical Society officers for 1982-1983. These are Melvin D. Hoffman, MD, President; Leonard S. Staudinger MD, Vice President; Charles P. Shoemaker, Jr. MD, President-Elect; Milton W. Hamolsky MD, Secretary; and Kenneth E. Liffmann MD, Treasurer. The recommendations will be brought to the House of Delegates for final vote at its next meeting on March 24, 1982.

At the same Council meeting the Blue Shield Nominations Committee presented a slate for recommendation for nomination to the Blue Shield Board of Directors and the Blue Shield Professional Advisory Committee. Following ballots, slates were endorsed to be submitted to the House of Delegates for final vote. Recommendations for nomination to the Blue Shield Board of Directors are Joseph E. Caruolo MD, George N. Cooper Jr. MD, Herbert P. Hager MD, and William J. MacDonald MD. Recommendations for nomination to the Blue Shield Professional Advisory Committee are Robert E. Baute MD, Henry B. Freye MD, and Paul B. Metcalf Jr. MD.

17th ANNUAL CONFERENCE ON MEDICAL ASPECTS OF SPORTS

The 17th Annual Post-Graduate Conference on Medical Aspects of Sports will be held July 15-16, 1982 in the Keaney Gymnasium, University of Rhode Island, Kingston, Rhode Island. The program is sponsored by the Rhode Island Medical Society and the University of Rhode Island Department of Intercollegiate Athletics. Among the 27 papers which will be presented by local and national authorities on sports medicine are "The Preparticipation Examination," "The Effects of Strength Training on the Conditioning Process," "Physical Therapy in Athletic Medicine -- Use of Cybex Machine," and "The Shoe and the Foot in Runners."

NEW STAFF MEMBERS ... WELCOME

Mr. Brian Clarke has been appointed as Assistant Executive Director to fill the position formerly occupied by Mr. Howard Lawton, who resigned effective December 31, 1981. Mr. Clarke graduated from Providence College in 1977 with a BS degree in Health Services Administration. He also completed studies last year for an MPA degree from Suffolk University in Boston. His employment experience in the health field includes administrative positions with Blue Cross and Blue Shield of New Jersey, Boston City Hospital and Upham's Corner Health Center in Dorchester, Massachusetts, a primary care facility affiliated with the Boston Department of Health & Hospitals. Mr. Clarke joined the Society staff on February 8.

Mr. Larry Chionchio was selected to fill the position of Rhode Island Medical Society Librarian following the recent resignations of Miss Judi Zimmer, Librarian, and Mrs. Jane Gwynn, Assistant Librarian. Mr. Chionchio graduated from Roger Williams College in Bristol in 1973 with a major in history. Following graduation he was employed for several years by Harmony Hill School in Chepachet, a residential treatment facility for behaviorally disordered youths, as a youth care worker and later as supervisor of youth care services. In 1980 Mr. Chionchio entered an MLS program at the University of Rhode Island and completed studies there in late 1981. In his new position he has been assigned to study the present operations of the Rhode Island Medical Society Library and to provide input to meetings of the Library Committee, which will prepare a report on long-range uses of the Library to serve as the basis for testimony to the Rhode Island Medical Society Long-Range Planning Committee. Mr. Chionchio joined the staff on February 1.

REPORT SAYS COINSURANCE CUTS UTILIZATION

A new study by the Rand Corporation indicated that people who are fully covered for their health care costs will incur 50 per cent more in medical expenses than people who must pay a significant portion of the bills out-of-pocket. The study looked at over 7,700 persons in six areas enrolled in varying types of health insurance plans. Other findings in the report indicate that poor people are affected neither more nor less by cost-sharing than richer people if the amount they pay is proportionate to income, and adults who share costs are hospitalized less frequently than those with full coverage. Once in the hospital, there is no significant difference in spending.

(from Legislative Roundup, January 29, 1982, published by the Council on Legislation, American Medical Association)

DO YOU KNOW AN IMPAIRED PHYSICIAN?

According to a report published recently by the Department of Mental Health of the American Medical Association, treatment of physicians for alcohol addiction shows favorable outcome in 83 per cent of cases, and treatment of physicians for drug addiction shows favorable outcome in 95 per cent of cases. Also, 71 per cent of physicians entering treatment return to the active practice of medicine. If you know of a physician who needs an advocate and support in obtaining necessary treatment and help, please contact the Impaired Physicians Committee, Rhode Island Medical Society, 106 Francis Street, Providence, RI 02903 (401) 331-3207. The Committee handles referrals in complete confidence.

1983 FEDERAL BUDGET PROPOSALS: IMPACT ON PHYSICIANS

Part of the plan to save money on the Medicare program are several proposals which would impact on physicians by:

- . Postponing the date of the Part B fee screen adjustment from July 1 to September 30, which is expected to reduce physician reimbursement outlays by \$220 million on a one-shot basis.
- . Limiting the increase in the Medicare Economic Index to 5 per cent instead of 8 per cent, at a savings of \$37 million in fiscal 1983.
- . Reimbursing for inpatient radiology and pathology services at 80 per cent of reasonable charges, instead of at 100 per cent, for a saving of \$160 million next fiscal year.
- . Eliminating the payment of overhead expenses to hospitals for physicians' services in outpatient departments "by refining the application of the Medicare customary and prevailing charge screens to more appropriately reflect reasonable charges for professional services provided in different locations." The savings estimate is \$160 million.

(from AMA Newsletter, February 8, 1982, published by the American Medical Association)

HEALTH CARE "COMPETITION" OPTIONS

Secretary Schweiker has presented to the Cabinet Council on Human Resources a series of options which he says would promote "competition" in the health care marketplace. These options are as follows:

Option 1: prohibit employers from deducting excessive health insurance premiums; Option 2: encourage employers by tax credits to offer a choice of cost-effective health plans while giving employees by tax-free rebates an incentive to enroll in such plans; Option 3: combine Option 2 with increased excise taxes on alcohol and cigarettes to offset tax revenue loss from the tax credits and tax-free rebates of Option 2; Option 4: expand beneficiary cost-sharing for hospitalization with added coverage for catastrophic illness; Option 5: offer Medicare beneficiaries the option of enrolling in private health plans (Medicare voucher proposal).

SURVEY OF FILIPINO AND IRANIAN PHYSICIANS

The office of Medical Education of Jefferson Medical College of Thomas Jefferson University, with financial support from the Educational Commission for Foreign Medical Graduates (ECFMG) will be mailing questionnaires to 5,500 randomly selected Filipino and Iranian physicians to gain information on factors affecting their career decisions, problems, concerns, and suggestions for alleviating any of the problems which they have faced. Rhode Island Filipino and Iranian physicians who receive the questionnaire are urged to cooperate in the study.

RIMS RESOLUTIONS from the HOUSE OF DELEGATES

Resolutions passed at the meeting of the Rhode Island Medical Society House of Delegates held January 20, 1982 are as follows:

"Be it resolved that the Rhode Island Medical Society supports the Determination of Death Bill reviewed by its Public Laws Committee to be introduced in the 1982 General Assembly

"Be it resolved that the House of Delegates should enter into negotiations with Blue Cross of Rhode Island, Inc. and Blue Shield of Rhode Island, Inc. to make available a U100 Plan for members of the Rhode Island Medical Society."

"Be it resolved that the Rhode Island Medical Society contact the Department of Health and Human Services to determine whether RIPSRO is following its obligations by conducting only retrospective reviews and not doing concurrent reviews."

BROCHURE: "LET'S TALK ABOUT HEALTH INSURANCE"

"Let's Talk about Health Insurance," a new brochure prepared by the AMA Council on Medical Service, designed to help consumers understand various types of health insurance coverage and contract provisions with tips on how to select an insurer, is available from the Department of Health Care Financing, American Medical Association, 535 North Dearborn Street, Chicago, IL 60610. Single copies are available at no charge; for 2 to 10 copies the charge is 50¢ each; 11 to 49 copies, 45¢ each; 50 or more copies 40¢ each.

RIMS MEMBERSHIP COUNT

	December 1981	January 1982
Total RIMS Members	1424	1424*
Total AMA Members	762	765
New RIMS Members		5
*Count shows five new members minus three who are deceased, one who is moved out of state, and one member who was dropped.		
New members: Sheila Steiner MD, James Mancini MD, Angelo Pharmakidis MD, Freydoun Chaffa MD, Frank Capizzo MD.		

INTERNIST SOUGHT FOR PROVIDENCE PRACTICE

A young internist, board certified or board eligible, is wanted to join a busy Providence internist's practice, leading to partnership or ownership. If interested, a curriculum vitae and references should be sent to the Rhode Island Medical Journal, Box 2463, 106 Francis Street, Providence, Rhode Island 02903.

First Class First Aid

In
your
office

In
their
homes

Recommend

NEOSPORIN® Ointment

(POLYMYXIN B-BACITRACIN-NEOMYCIN)

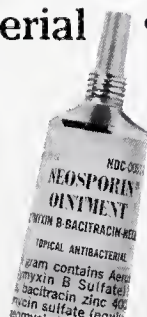
- Broad-spectrum antibacterial
- Handy applicator tip

DESCRIPTION: Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base), special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically* (as an adjunct to systemic therapy when indicated), for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neo-



mycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching, it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Motrin[®]

ibuprofen, Upjohn

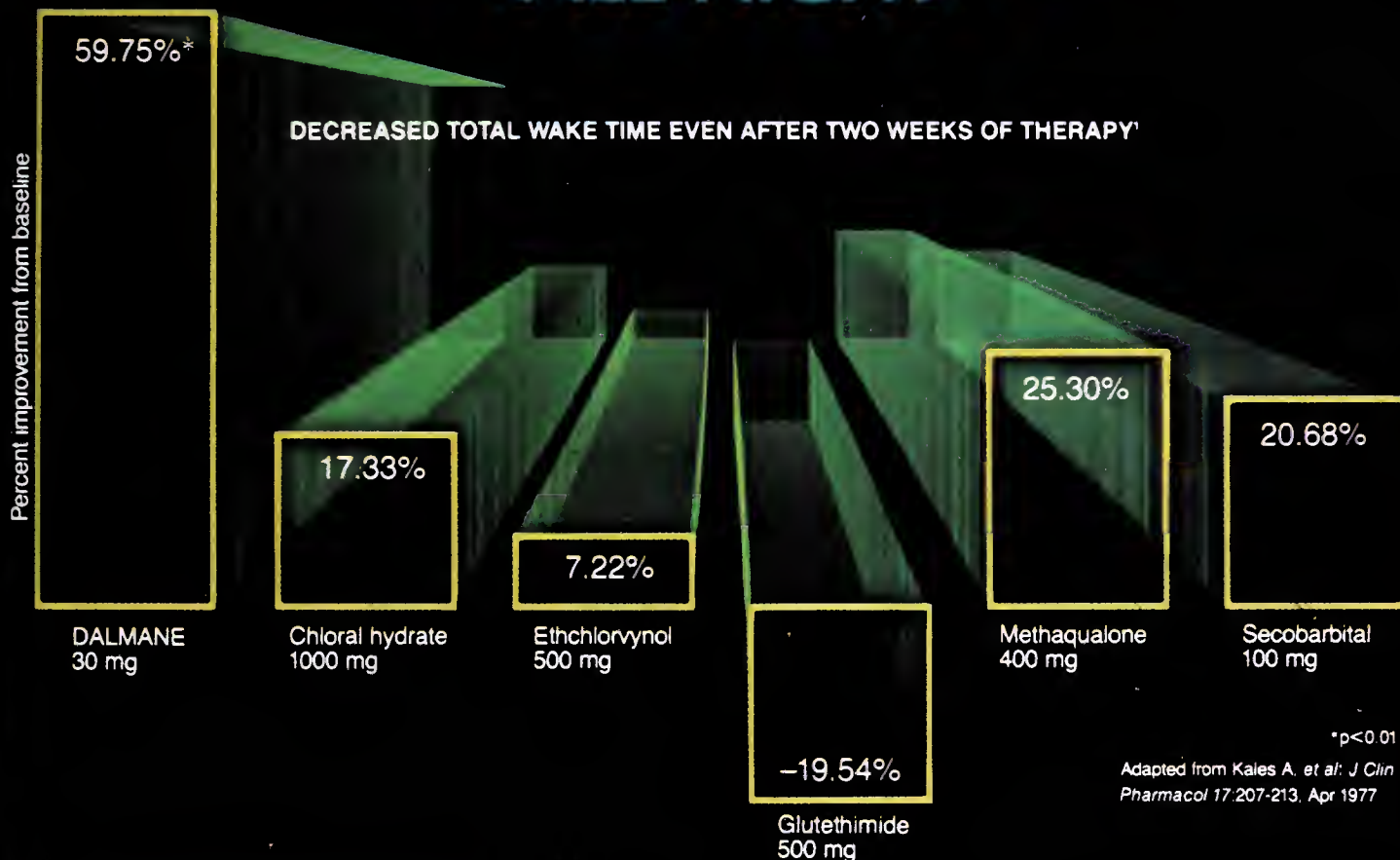
600 mg Tablets



More convenient for your patients

Upjohn

EFFECTIVE ALL NIGHT



WITH AN UNSURPASSED RECORD OF EFFICACY AND SAFETY

The efficacy of Dalmane (flurazepam HCl/Roche) has been documented in 185 studies involving 9141 patients suffering from one or more of the three major forms of insomnia—difficulty falling asleep, staying asleep and sleeping long enough.²

Relative safety was demonstrated in a large study of 2542 hospitalized medical patients. Only 3.1% of these patients reported adverse reactions—predominantly unwanted residual drowsiness. None of the reactions were considered serious by attending physicians.³

FOR SLEEP WITHIN 17 MINUTES² AND NO WORSENING OF SLEEP ON DISCONTINUATION

Rapid sleep induction, within 17 minutes on average, sets the stage for insomnia relief. And, after discontinuation of Dalmane for periods ranging up to 14 nights, no worsening of sleep compared with baseline was observed.⁴

Should insomnia recur, the patient may require guidance in setting up a regular sleep program to help

provide the optimum environment for the onset of natural sleep. If hypnotic therapy is required, it should be given for the shortest time at the lowest effective dose to achieve the desired goal.

Consider other medications the patient may be taking (including alcoholic beverages) and be aware of possible drug interactions. Please note that patients should be treated for underlying physical or psychological factors before therapy with a sleep medication is undertaken.

DALMANE[®]
flurazepam HCl/Roche
**THE STANDARD OF HYPNOTIC EFFICACY
FROM THE LEADER IN SLEEP RESEARCH**



Please see reverse side for a summary of product information.



SLEEP-SPECIFIC **DALMANE**[®] _{IV} flurazepam HCl/Roche

One 15-mg capsule h.s.—recommended initial dosage for elderly or debilitated patients.
One 30-mg capsule h.s.—usual adult dosage
(15 mg may suffice in some patients).

THE STANDARD FOR HYPNOTIC EFFICACY WITH IMPORTANT ADDED BENEFITS

- Well tolerated²
- No chemical interference with many commonly ordered laboratory tests, including triglycerides, uric acid, glucose, SGOT, alkaline phosphatase and total protein^{5,6} (See adverse reactions section of complete product information.)
- Compatible with chronic warfarin therapy; no unacceptable fluctuation in prothrombin time reported^{7,8}

UNLIKE NONSPECIFIC MEDICATIONS USED FOR SLEEP

Tricyclic antidepressants

- which are *not* sleep specific,⁹ yet are sometimes used in nondepressed patients for sleep
- which can cause transient insomnia in the elderly¹⁰
- which can require careful monitoring in cardiovascular patients¹⁰
- which have strong anticholinergic effects¹⁰

Antihistamines

- which are *not* reliable sleep-inducing agents¹¹
- which may produce stimulation instead¹¹
- which have anticholinergic effects¹¹

Major tranquilizers

- whose side effects may be troublesome for nonpsychotic patients¹²
- where tolerance for sedation appears rapidly¹²

Dalmane does not cause significant worsening of sleep beyond baseline levels upon discontinuation.⁴

References: 1. Kales A, et al. *J Clin Pharmacol* 17:207-213, Apr 1977 2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ 3. Greenblatt DJ, Allen MD, Shader RI. *Clin Pharmacol Ther* 21:355-361, Mar 1977 4. Kales A, et al. *Clin Pharmacol Ther* 18:356-363, Sep 1975 5. Moore JD, Weissman L. *J Clin Pharmacol* 16:241-244, May-Jun 1976 6. Spiegel HE. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ 7. Robinson DS, Amidon EL. Interaction of benzodiazepines with warfarin in man, in *The Benzodiazepines*, edited by Garattini S, Mussini E, Randall LO. New York, Raven Press, 1973, pp 641-646 8. Warfarin Study. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ 9. Baldessarini RJ. Drugs and the treatment of psychiatric disorders, chap 19, in Goodman and Gilman's *The Pharmacological Basis of Therapeutics*, ed 6. New York, Macmillan Publishing Co. Inc., 1980, pp 391-447 10. Cole JO, Davis JM. Antidepressant drugs, chap 31 2, in *Comprehensive Textbook of Psychiatry II*, edited by Freedman AM, Kaplan HI, Sadock BJ, ed 2. Baltimore, The Williams & Wilkins Company, vol 2, 1976, pp 1941-1956 11. Douglas WW. Histamine and 5-hydroxytryptamine (serotonin) and their antagonists, chap 26, in Goodman and Gilman's *The Pharmacological Basis of Therapeutics*, ed 6. New York, Macmillan Publishing Co. Inc., 1980, pp 609-646 12. Davis JM, Cole JO. Antipsychotic drugs, chap 31 1, in *Comprehensive Textbook of Psychiatry II*, edited by Freedman AM, Kaplan HI, Sadock BJ, ed 2. Baltimore, The Williams & Wilkins Company, vol 2, 1976, pp 1921-1940

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701



The Facts: Medical Education and Its Costs

Total revenues for 119 medical schools in the United States in 1979-1980 were \$5.7 billion, and total expenditures \$5.6 billion, excluding capital outlays. In the same year the median revenues for a single school were \$42 million and the median expenditures \$41.9 million.¹ Total revenues for the Brown University Program in Medicine in 1980-1981 were \$11.3 million and total expenditures equalled revenues.² Table 1 shows the distribution of funds by major sources of income and major categories of expenses in United States medical schools and in the Brown University Program in Medicine.

Medical school revenues and expense figures, however, do not take into account other outlays absolutely essential to the support of medical education programs. Hospitals and other patient service institutions and organizations, when operated by or affiliated with a medical school, generate much larger costs than do non-teaching hospitals.

Whatever the relationship between hospitals and the medical schools, the financial arrangements between them are extremely complex. Indeed, a questionnaire by the Association of American Medical Colleges has been revised recently in an attempt to identify sources of financial support of medical education not hitherto accounted for by medical schools.

Teaching Physicians' Salaries: 9.2 Million. One example of support other than directly from medical school budgets is salaries paid to full-time teaching physicians. The Brown University Program in Medicine in Providence, Rhode Island — the only medical school in the state — records a budget which totalled \$11.3 million in 1980-1981, as shown in Table 1 and Figure 1. This amount does not include salaries of physicians affiliated with Brown University who teach medical students and residents in hospitals. According to Rhode Island Blue Cross, the total of such salaries reimbursed in 1979-1980 by Blue Cross, Medicare, and other third parties for 182 teaching physicians in six teaching hospitals in the state amounted to \$9.2 million. This figure is



Charles E. Millard, MD

not included in the Brown University Program in Medicine budget. The size of the expenditure reflects a growth in the number of full-time faculty in the Brown University Program in Medicine which, according to Doctor David S. Greer, Dean of Medicine, "greatly exceeds the prediction expressed in the early 1970s."²

Residents' Salaries: \$6.1 Million. Another cost of medical education over and above medical school budgets is salaries paid to residents. According to Rhode Island Blue Cross information, Blue Cross, Medicare, the state, and private insurers in 1979-1980 paid a total of \$6.1 million to 325 intern and resident full time equivalents (FTEs).^{*} Approximately 35 per cent of this cost is reimbursed by Blue Cross, more than 40 per cent by Medicare, about 20 per cent by the state, and the remainder by private insurers. Moreover, this cost of residents' salaries is not the total cost of

^{*} In 1979 in the United States the average number of medical-dental trainees per 1,000 occupied hospital beds was 76.4, while in Rhode Island it was 137.0, the highest in the nation. (See Millard CE: Medical residents — Rhode Island highest in the nation — a dubious, expensive honor. RIMedJ 64(11):501-502, Nov 81.)

residency programs. As noted by David Rosenbloom, PhD, Boston's Commissioner of Health and Hospitals, "It's more than just salaries (that cost the hospital money). There are lab costs, support systems, supervision costs, and inefficiencies that come from frequent rotations. . . . You couldn't do residency programs more expensively than they're being done now."³ (italics added)

Rhode Island State Government's Role: \$1.167 Million. State appropriations to public medical schools in the United States have increased steadily from \$209 million in 1969-1970 to \$1,076 million in 1979-1980. State and local grants to private medical schools in the United States have increased similarly from \$20 million in 1969-1970 to \$82 million in 1979-1980.¹ In 1979-1980 in the United States \$82 million in subsidies were paid to private medical schools by state and local governments, amounting to 3.3 per cent of the total revenues for the year. In Rhode Island in 1980-1981 the state appropriated \$1.167 million for the Brown University Program in Medicine, or approximately 10 per cent of the Program's total budget of \$11.3 million. The amount presently being considered by the Rhode Island General Assembly for 1982-1983 is \$1.187 million. *The rationale for state appropriations to private medical education is that medical schools will assist the state by taking part in the direction and planning of programs among the affiliated hospitals.* Presumably this direction and planning is valuable to the state in its need to have adequate medical care available to its citizens.

As outlined above, the budget of the Brown University Program in Medicine is only a part of the costs of the medical education system in Rhode Island. The Brown University Program in medicine in 1980-1981 spent \$11.3 million. In addition, however, salaries to teaching physicians and residents (1979-1980) totalled \$15.3 million, which was all reimbursed by Blue Cross, Medicare, the state, and private insurers. (Fig. 2)

The establishment of the Brown University Program in Medicine undoubtedly has improved the quality of medical care delivered in Rhode Island. With the growth of the Program's scope and influence and the pervasive expansion of the medical education system in the state, however, the price tag for these benefits has become much higher than predicted a few years ago. The cost is not Brown's alone. Indeed, the university's direct financial contribution to the budget of its Program in Medicine of \$304,500 in 1980-1981 was a mere 1.1 per cent of the estimated \$26.6 million in annual expenditures for medical education in the state. (Figs. 1 and 2)

On the other hand, the cost to citizens, indirectly — including the state's appropriation and amounts paid out by Blue Cross, Medicare, the state, and private insurers — was \$16.5 million (1979-1980) which was 62 per cent of the estimated \$26.6 million. (Fig. 2)

In view of this large investment by the public, members of the Rhode Island Medical Society and Rhode Island citizens have a responsibility to review the presently existing medical education system in the state and to ask the following ques-

Table 1. Sources of revenues and distribution of expenditures in US Medical Schools (1979-1980) and Brown University Program in Medicine (1980-1981).

	US Medical Schools (1979-1980)		Brown University (1980-1981)	
	(Millions of \$)	(%)	(Millions of \$)	(%)
Tuition and Fees	262	4.6	3.8	33.5
Gifts, Grants and Contracts	3,854	67.6	6.0	53.3
University Appropriations	325	5.7	.3	2.7
Other Income	1,260	22.1	1.2	10.5
Total Revenues	5,701	100.0	11.3	100.0
Facilities Maintenance	308	5.5	1.0	8.6
General Administration	637	11.4	1.1	10.1
Instruction and Student Services	2,913	52.1	4.8	42.3
Research Grants and Contracts	1,348	24.1	3.6	31.6
Other Expenses	386	6.9	.8	7.4
Total Expenditures	5,592	100.0	11.3	100.0

Note: Figures in this table are derived from data in "Medical Education in the United States, 1980-1981: Section II, Undergraduate Medical Education," *The Journal of the American Medical Association*, December 25, 1981; and from "Faculty Update," September/October 1981, published by the Brown University Program in Medicine, Providence, Rhode Island.

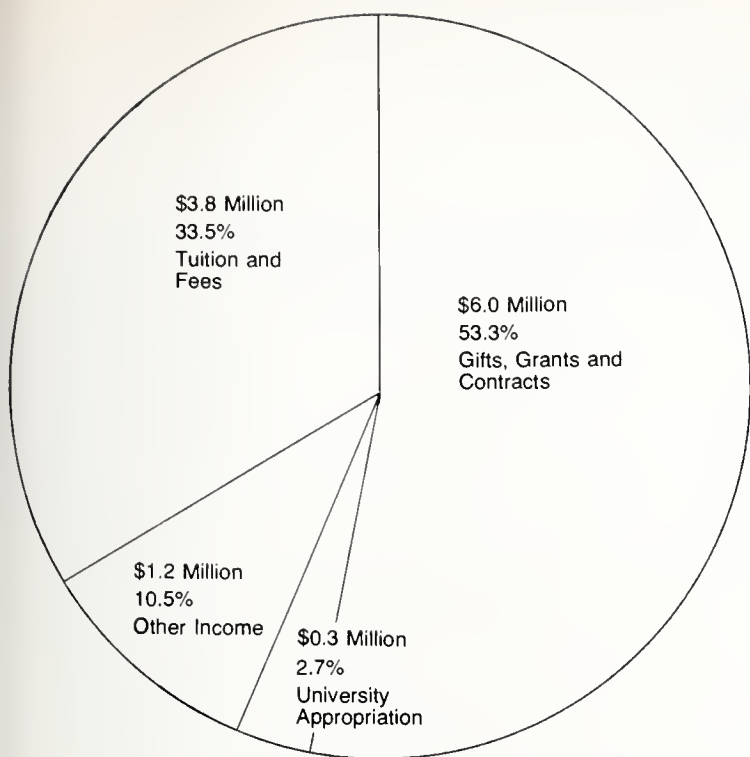


Figure 1. Brown University Program in Medicine Sources of Income 1980-1981 (Total Income \$11.3 Million).

Note: Diagram from "Faculty Update," September/October 1981, published by the Brown University Program in Medicine, Providence, Rhode Island.

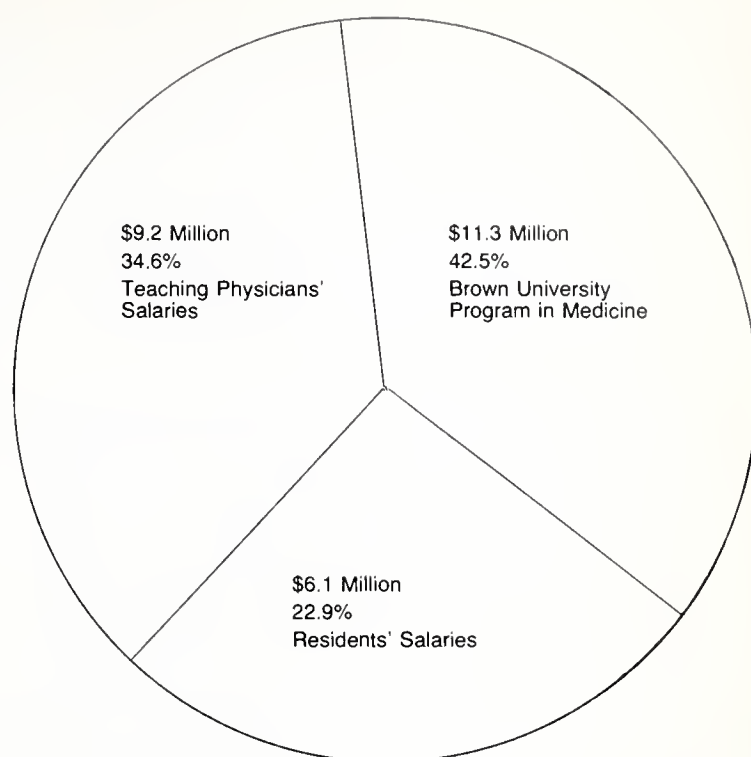


Figure 2. Sources of Support for Medical Education in Rhode Island (Total Support \$26.6 Million).

Note: Amounts for Teaching Physicians and Residents' Salaries are for 1979-1980; amount from the Brown University Program in Medicine is for 1980-81. No adjustment has been made to reflect distribution of sources for a single fiscal year and therefore the total support must be considered approximate.

tions about its future:

1) Considering the oversupply of physicians in Rhode Island, which is an acknowledged fact, and in view of the escalating cost of medical education, is it reasonable to continue to increase the number of medical residents in the state, to add new residency programs, and to upgrade presently existing programs?

2) Since neither Brown University nor the hospitals pay the salaries of teaching physicians and residents, which are pass-through costs, what incentives exist to control unreasonable additions of residency programs sponsored by these institutions, but not paid for by them? Or, if Brown University determines that there is a need for upgrading and expansion of programs and additional residency programs in the state, is the university willing to fund them?

3) Can the present pattern of financing medical education continue? William Gonzales, Director of the Irvine Medical Center of the University of California has predicted that the State of California will force the identification of teaching costs in hospitals. It is Gonzales's view that "Ulti-

mately, the state is going to say, 'Our programs are to give care to the indigent, and not to support medical education. The universities are supposed to do that.'"³ (italics added)

4) Finally and maybe most importantly, should those who are making the decisions with respect to medical education be allowed to continue planning and implementing without consulting physicians, their patients, and others who are going to be directly affected by their actions?

These questions do not carry any pejorative meanings. I ask them honestly, in the hope that they will be addressed openly. In the midst of the present economic situation afflicting many less fortunate citizens all around us, it is time that we together determine a course of action and establish our priorities.

References

- ¹ Peterson ES, Crowley AE, Etzel SI, et al: Education in the United States, 1980-1981: Section II, Undergraduate medical education. JAMA 246(25):2913-2930, 25 Jan 81.
- ² Brown University Program in Medicine, Providence, Rhode Island: Faculty Update 1(6):6, Sep/Oct 81.
- ³ Residency programs may be cut. American Medical News, January 29, 1982, p. 3.

Are you protected if your office is damaged or destroyed?

The Office Protection Plan (TOP) gives you one low-cost policy that covers:

- Destroyed accounts receivable
- Employee dishonesty and embezzlement
- Destroyed patient charts
- Office liability
- Personal injury
- Office equipment
- Practice interruption

Plus many other significant risks faced by physicians. And TOP covers these risks fully ... adequately ... so you need not worry again about loss. For more information on TOP, call Don Marcum at (401) 421-6900.

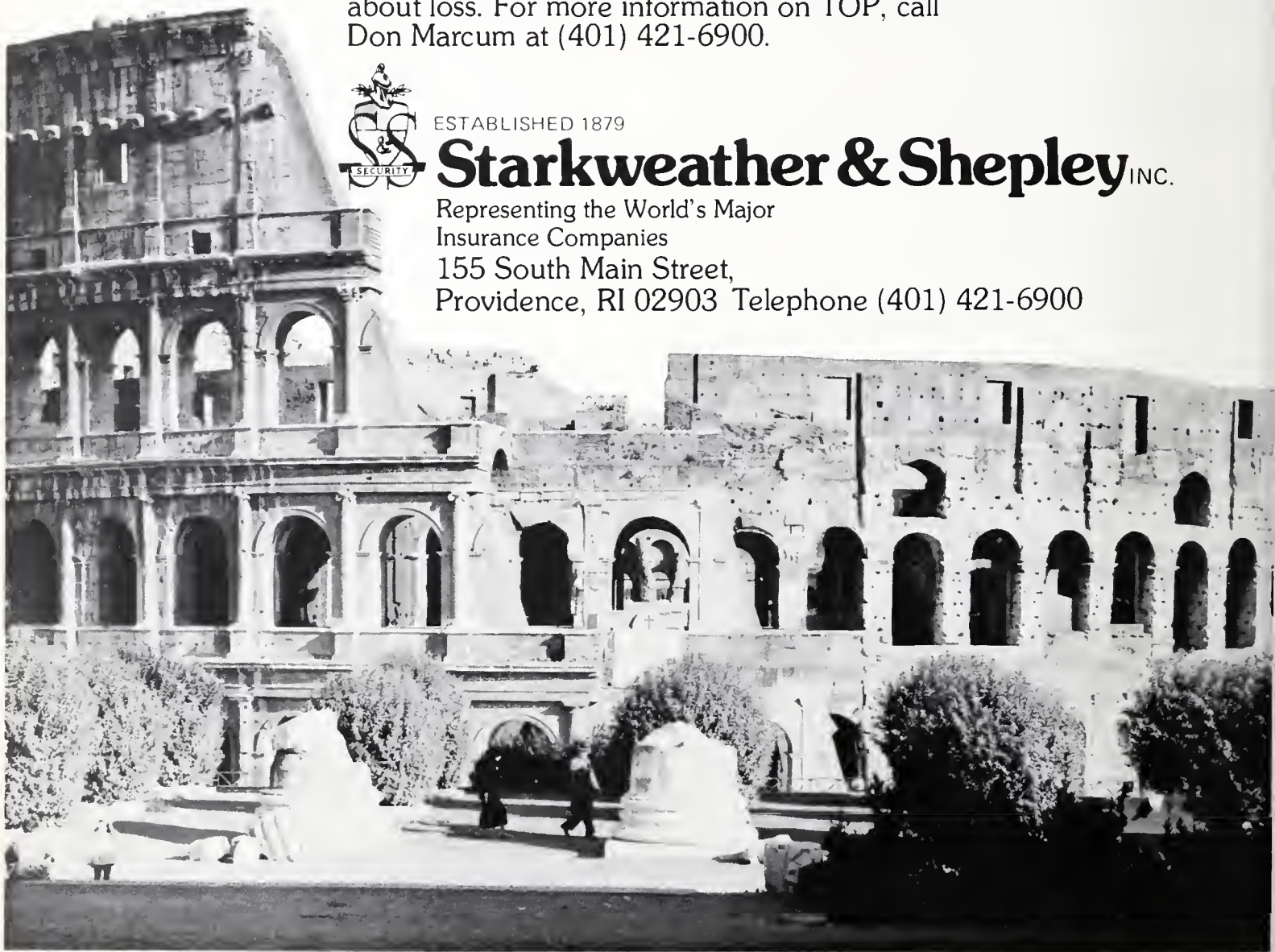


ESTABLISHED 1879

Starkweather & Shepley INC.

Representing the World's Major
Insurance Companies

155 South Main Street,
Providence, RI 02903 Telephone (401) 421-6900



Electrical and Electromagnetic Treatment of Nonunion of Fractures

For the past year reimbursement for the electrical and electromagnetic treatment of fractures has been approved by federal Medicare, which, as a practical matter, implies that it is no longer deemed experimental. The FDA also has confirmed it as an approved clinical technique.

There are in essence two methods, one invasive, the other noninvasive. Carl T. Brighton of Philadelphia recommends the insertion of several pins acting as cathodes directly into the nonunion site while the patient is under anaesthesia. The anode is in a battery or power pack, which may be on the skin or implanted into soft tissue near the fracture site. This yields a constant direct current. Period of upwards of 12 weeks may be required for healing.

The second method, developed by C.A.L. Bassett of New York City is noninvasive and involves electromagnetic forces from a coil implanted directly over the nonunion site in a plaster dressing or device worn by the patient. The coil induces a weak pulsing electric current at the nonunion site.

Experience with both types of electrical treatment suggests that they are equally effective and yield success rates parallel to those of bone grafting. The pulsating technique has led to dramatic healing in congenital pseudoarthrosis of the tibia.

Robert O. Becker of Syracuse has demon-

strated that infected nonunions can be successfully treated by electricity transmitted through a silver cloth. The silver ions are driven into the bone to combat the infection, while the electricity stimulates osteogenesis.

By late 1979 Brighton and his group had reported 400 cases with healing rates of 80 to 85 per cent. Bassett and co-workers in June 1981 reported 149 cases of nonunion treated by pulsed electromagnetic fields with ultimate healing rates of 64.4 per cent. Absence of x-ray evidence of trabecular bridging at three months generally predicted failure. Average time of healing, however, was 14.1 months.

Medicare has approved use of the noninvasive stimulator for 1) nonunion of long bone fractures, 2) failed fusion, and 3) congenital pseudoarthrosis, while use of the invasive device is covered only for nonunion of long bone fractures. According to Medicare criteria nonunion for all types of devices should be considered to exist only after six or more months without healing of the fracture have elapsed.

These promising new techniques for management of an age-old problem are welcome additions to our burgeoning medical technology.

Seebert J. Goldowsky, MD

Medical Control for Prehospital Care

Prehospital care in Rhode Island is delivered by fire departments and ambulance companies staffed by paid or volunteer Emergency Medical Technicians (EMTs). The basic level is the EMT-Ambulance with 81 hours of training; the most advanced is the EMT-Cardiac with 120 hours of additional training in defibrillation and peripheral intravenous skills. Last year, the third level of EMT-Intermediate was created to allow the use of additional airway measures and the pneumatic shock garment (MAST) in rural and

suburban areas which do not have the advanced level of service. The level of EMT-Paramedic has never been implemented in the state. The state created a Division of Emergency Medical Services (EMS) within the Department of Health in the early 1970s to license these persons, and two pieces of legislation were enacted in 1973 and 1974 to provide a statutory basis for the regulation of the system.

The basic legislation created a thirteen member Ambulance Service Coordinating Board to

work "in conjunction with" the Director of Health to plan for statewide EMS, coordinate training programs for EMTs, set licensure standards for EMTs and vehicles, and supervise ambulance services. The composition of the Board is specified by the statute; and, in addition to the Director of Health (or his designee), there is provision for only one physician member (from the Rhode Island Medical Society).

Medical control is the cornerstone of good Emergency Medical Services everywhere. Recent National Academy of Sciences publications reaffirm this principle. A program of prehospital care without clear and uniform medical guidelines allows inconsistency; a program without adequate quality assurance and data analysis allows errors to persist. Active physician participation on a day-to-day basis is necessary to assure appropriate prehospital medical care.

Progress toward more advanced prehospital skills will require substantive changes. The most vital issues require action now: legislation is before the General Assembly to provide for additional physician input to the Ambulance Service Coordinating Board, to assure statewide minimum standards for training and data collection,

to establish a quality assurance program, and to explicitly provide statutory Immunity from Liability for those who train, supervise, or train and supervise EMTs. Without this legislative change, the safeguards necessary to consider advancement toward Paramedic services will not be available. Without change in the system, we shall continue to resuscitate fewer than 8 per cent of cardiac arrest victims — even in the metropolitan areas of the state. Medical and trauma care need constant physician vigilance for optimal outcomes.

The time is now for Rhode Island physicians to assure themselves of adequate medical control of prehospital care. The mortality and morbidity of those for whom we care are directly affected by this vital program, and we must not abdicate our role in its leadership. Express your concern and support for EMS legislation to your Society and to your local legislative representatives.

Glenn W. Mitchell, MD
Medical Director
Emergency Medical Services
Rhode Island Department of Health

Utilization Review of Ancillary Services

To the Editor:

Regarding the editorial "Ancillary Services" (*RI Med J* 6:54, Dec 81), the author, Doctor Seebert J. Goldowsky, is to be commended for his recognition of one of the major problems in overutilization patterns. However, his statement regarding the length of stay is surprising. It is unfortunate that the author did not review data as developed by the Rhode Island Professional Standards Review Organization (RIPSRO) concerning utilization patterns and identification of major problems relative to the non-medical (administrative and waiver) days. These data have been well documented and well received throughout the country by most authorities including the Congress.

There is no question that there has been a significant change in utilization patterns in the past five years since the inception of the PSRO. There is no question in our minds that utilization patterns can be further improved as demonstrated by our most recent data revealing the continued high incidence of administrative days. Rhode Island is no stranger to system waste.

We also call attention to the fact that the federal

government, initially, emphasized length of stay; but, in the past three years, the Health Standards and Quality Bureau has recommended that PSRO funds were reduced because of the current state of the economy. This is not to say, however, that the RIPSRO has not been actively involved. For the past four years, we have been developing our own data and trying to acquire data from other sources, in order to develop a generalized pattern of ancillary services. Fortunately, we have obtained a significant amount of cost data relative to the utilization of such services, which will be very helpful. Within the future, RIPSRO will further analyze these data in making its ancillary review.

It is our firm belief, in contrast to Dr. Goldowsky's proposal that a study of ancillary services be carried out under academic auspices, that such a review must be conducted and corrective action taken by RIPSRO, whose membership embraces all types of physicians.

Alton M. Paull, MD
President, RIPSRO

Time appears to be running out. Ed.

Physicians and Health Planners

To the Editor:

Doctor Charles E. Millard in his President's Corner commentary ("Health Planning May Be Dangerous To Your Health," *RI Med J* 65:13-14, Jan 82) expresses frustration over the direction of health planning in Rhode Island. I feel that we health planners in the state are doing our jobs. It would seem that Doctor Millard does not realize that our job and, therefore, our perception of the needs of the health system are different from his. As a physician he is obliged to do everything within reason for each of his patients. If I were his patient and were seriously ill, I would want him to do everything within reason for me. However, we

obviously do not have the resources to do all things for all people. Howard Hiatt, Dean of the Harvard School of Public Health, has very aptly pointed out that, if unrestrained, such an approach to resource allocation would destroy the health system for one and all.¹ The health planner's responsibility is to recommend health resource allocation strategies that will insure the effectiveness and viability of the whole health care system, such that it will best serve the needs of the population. To use an analogy, health planners are meant to tend the forest (ie, population), and physicians are meant to tend the trees (ie, patients). I think that Doctor Millard is not seeing the forest for the trees when he asserts that

health planners should base resource allocation recommendations upon the individual patient. That is the physician's job, not that of the health planner.

We hope that one day we shall see our relationship as symbiotic rather than antagonistic. In any case, we should continue to challenge each other. In so doing, both the population and each patient would be best served. In that vein, Doctor Millard's comments on hospital utilization and beds in Rhode Island are well taken. We health planners could be persuaded of the need for additional beds. To accomplish this, physicians must document that all patients occupying hospital beds need a hospital level of care and that there are additional patients who need hospital

care and cannot reasonably be accommodated within the existing bed supply. Otherwise, increasing the number of hospital beds will waste precious resources and deny care to other people who are in need of nonhospital services. Although the cost is not seen in monetary terms, we pay a real price when we deny people needed ambulatory care, preventive services, or home care.

Bruce C. Kelley, PhD
Chief, Office of Health System Planning
Rhode Island Department of Health

Reference

- ¹ Hiatt HH: Protecting the medical commons: Who is responsible? N Engl J Med 293:235-241.

A Uniform Determination of Death Act

Paul T. Welch, MD

The purpose of my address is to request the support of your Society in joint sponsorship with the Rhode Island Medical Society of the introduction and passage of the Uniform Determination of Death Act in the current Legislature.

Such legislation has been introduced in the Legislature yearly during the past five years through the Medical Examiners Office and the State Department of Health. Each year it has apparently gone undiscussed and been shelved. Two years ago, an act was introduced, promulgated by the American Medical Association, which included a disclaimer for liability. Subsequently, based on legal advice, the disclaimer for liability clause was withdrawn. Later, the American Medical Association, the American Bar Association, and the National Conference of Commissioners on Uniform State Laws worked out a model definition. The American Medical Association Board of Trustees approved this definition in October of 1980, and the American Bar Association approved it at their annual Spring meeting of 1981. In the fall of 1981 the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research endorsed the Uniform Definition of Death Act. In a letter to President Ronald Reagan and Congressional leaders, the Commissioners recommended the Uniform Determination of Death Act, stating "We have considered that in the light of ever increasing powers of biomedical science and practice, a statute is needed to provide a clear and socially accepted basis of making a determination of death. State by state variation is not justified on a matter that is so fundamental and that rests on biological facts of universal applicability."

The Act provides that: "An individual who has sustained either (1) irreversible cessation of circulatory and respiratory function or (2) irreversi-

ble cessation of all functions of the entire brain including the brain stem is dead." In addition, the following clause is desirable for the State of Rhode Island to add on: "The determination must be made in accordance with currently acceptable medical standards and rules and regulations promulgated thereto." The determination of death in Rhode Island relies currently principally on the first portion of the Act which is the common law acceptance of irreversible loss of circulatory and respiratory function. Otherwise, Rhode Island has no statute, no rules and regulations, and no case law governing the second portion relating to irreversible cessation of all functions of the entire brain. This second part is necessary in order to resolve the dilemma in medical practice arising from the absence of such a provision.

The dilemma for the physicians, hospitals, and hospital employees has to do with potential malpractice liability relating to the disconnecting of organ support equipment, such as in cases where respirator patients have been declared dead because of the finding of a dead brain. If legally contested, even if brain death is highly unlikely, years of litigation, expense and notoriety could result. Therefore most physicians practicing in Rhode Island, including neurologists and neurosurgeons, continue organ support systems even though they are convinced of its futility. An exception might be consideration for organ donation when broached by the closest of kin. Patients may maintain good color, an adequate blood pressure, and good pulmonary function for periods of a few days up to a week or more even when the situation is hopeless.

If the medical decision is taken away from physicians and placed in the hands of the courts, no dead person could have the support system discontinued without a judicial decision, even at the request of relatives. The numbers of cases that would require decision almost daily would swamp the court calendars. Because of his train-

*Based on a paper read before the House of Delegates of the Rhode Island Bar Association — House of Delegates on January 8, 1982 at Newport, Rhode Island.

ing, experience, and expertise, a determination of death should really be the responsibility of the physician. A judge would in any case be obliged to rely on medical consultation to reach a decision to discontinue organ support systems. It is both inappropriate and impractical for the courts to become involved in such decisions.

Further, if the courts assumed responsibility for life and death decisions, there could be no recourse for dissenting relatives. Since he is immune from liability, there would be no recourse against a judge's decision.

There are fundamental safeguards to be considered. The issue is not a religious and philosophical matter, but an objective determination of a biological and pathological process. Safeguards have been built into the medical definition of death, involving the determination of irreversible cessation of all functions of the entire brain including the brain stem. These include evaluation of the neurological function of the cerebral hemispheres and the brain stem. These safeguards are necessary in the interest of the patient, the relatives, and the physicians. The time element is considered in insuring that the loss of brain function is not temporary. Elimination of reversible factors such as depressant drugs, metabolic disorders, hypothermia, and hypotension are eliminated by the second clause of the Determination of Death Act.

To insure these safeguards medically, an algorithm for determination of death has been developed by a subcommittee of the Medical Examiners Commission, based on the results of a collaborative effort of nine cooperating centers in the United States. Supported by the National Institute of Neurological Diseases and Stroke its mission has been to study the problems of cerebral death since 1971. This algorithm results from the new developments in the diagnosis of brain death and from the response of the laity and the professions to the changing concepts of death. It has been evaluated by an ad hoc committee of the Rhode Island Medical Examiners Commission for the purposes of adopting rules and regulations relative to the determination of death including brain death. This ad hoc committee submitted it to the Medical Examiners Commission at their January 1982 meeting for consideration of adoption. The Medical Examiners Commission has been vested by the Legislature with the authority to do this under Section 23-4-6 of the General Laws of Rhode Island in 1956, titled "Statute of the Office of State Medical Examiners," subsection 6, functions of the Medical Ex-

aminers Commission.

It is often asked whether a physician is declaring a brain death prematurely, so that he can obtain organs for transplantation purposes, when the patient is still viable. Since it is the physician's primary concern to save lives and improve health, this allegation is wholly untenable. Such an act has never been substantiated. Yet it is indeed the physician's responsibility to further the procurement of organs, where life may be prolonged and the quality of life improved. For example kidney dialysis is a costly process. Kidney transplants may save lives and result in the saving of many dollars. Salvaging useful organs from suitable dead donors can be facilitated by a rational determination of death.

Safeguards or rules and regulations are therefore required to put at ease the anxiety of proponents of right to life, so that they may be reassured that indeed a patient considered to be brain dead is truly and unequivocally dead. Good color, pulmonary function provided by external means, a functioning heart, and a measurable blood pressure, may give an irreversible comatose patient the deceptive appearance of being asleep. Neurological findings supported by laboratory diagnoses that there is no functioning brain present prove, however, that the patient is tragically maintained not by life-sustaining but by organ-sustaining equipment. Public education in this matter is essential. Physicians must apprise relatives of the condition of patients and discuss the options of such discontinuance of the organ-support systems or consideration for organ donation. The emotions of relatives are treated as well as the patient. If relatives can accept the fact that their loved one has had an irreversible brain death and that he can give life to another person, their grief may in some measure be assuaged. If relatives cannot accept this, then further consideration for organ donation is not raised by the physician.

It would be a major source of reassurance that a brain death statute has support in recognizing a physician's ability to establish brain death. This absolute assurance supported by rules and regulations establishing a brain death is mandatory for the public. It would ease their anxiety and help to comfort them when there is likely to be a nagging suspicion that the doctor may be wrong. Other benefits to accrue to the public welfare are: (1) timing of death for legal purposes, such as following out the desires of the wills, and (2) cost benefit to patients involved with frequent dialysis.

REPORT OF THE HOUSE OF DELEGATES

Meeting September 23, 1981

A **regular meeting** of the House of Delegates of the Rhode Island Medical Society was held on Wednesday, September 23, 1981 in the auditorium of the Rhode Island Medical Society.

The meeting was called to order by the Speaker of the House, Dr. Leonard S. Staudinger at 2:25 p.m. Members present were:

Officers: Charles E. Millard, MD, President; Melvin D. Hoffman, MD, President-Elect; David R. Hallmann, MD, Secretary; Erminio Cardi, MD, Treasurer.

Delegates:

Kent County Medical Society: John C. Osenkowski, Fred T. Perry, Thomas A. Vest, MDs.

Newport County Medical Society: Charles P. Shoemaker, Jr., MD.

Pawtucket Medical Association: Bruno Borenstein, David Carter, Robert E. Curran, Benjamin Healey, Richard Wong, MDs.

Providence Medical Association: Frances P. Conklin, John J. Coughlin, Erminio Cardi, Richard D. Frary, Joseph R. Gaeta, Herbert F. Hager, Betty B. Mathieu, Kenneth B. Nanian, Jay M. Orson, Elliot Perlman, Robert W. Riemer, Raymon S. Riley, Guy A. Settipane, Albert F. Tetreault, Joseph R. Tucci, Louis Vito, Jr., MDs.

Washington County Medical Society: Erwin Siegmund, MD.

Woonsocket District Medical Society: John C. Baxter, Paul Hessler, MDs.

Specialty Society Representatives: Henry F. Ize-man, MD, Rhode Island Society of Internal Medicine; Alfred A. Arcand, MD, Rhode Island Chapter, American Academy of Family Physicians; Louis Hafken, MD, Rhode Island District Branch, American Psychiatric Association; Augustine M. McNamee, MD, Rhode Island Society of Anesthesiologists; John J. Coughlin, MD, Rhode Island Section, American College of Obstetricians and Gynecologists.

District Society Presidents: Richard G. Bertini, MD (Pawtucket); Frank G. DeLuca, MD (Providence); Roger Fontaine, MD (Woonsocket).

Speaker and Vice Speaker: Leonard S. Staudinger, MD, Speaker of the House; Charles P. Shoemaker, Jr., MD, Vice Speaker of the House.

Members Ex Officio: Seebert J. Goldowsky, MD, *Rhode Island Medical Journal*; John J. Cunningham, MD, Delegate, American Medical Association; Herbert F. Hager, MD, Alternate Delegate, American Medical Association; William J. MacDonald, MD, Chairman of Board, Blue Shield, Inc.

Also present were: Peter L. Mathieu, Jr., MD, Immediate Past President; Joseph E. Caruolo, MD, Past President; Frank J. Cummings, MD, Chairman, Cancer Committee.

Staff present were: Norman A. Baxter, PhD, Executive Director; Howard E. Lawton, Assistant Executive Director; Karen J. Challberg, Assistant Executive Director.

Members absent were:

Officer: William F. Varr, Jr., MD (excused).

Delegates:

Bristol County Medical Society: John DeMicco, MD.

Kent County Medical Society: Edward F. Aspri-
nio, Klaus F. Haas, Charles S. Kelly (excused), MDs.

Newport County Medical Society: Thomas Cahill (excused), Edwin Singsen, MDs.

Pawtucket District Medical Society: Mary-Elaine Rohr (excused), MD.

Providence Medical Association: Charles J. Ashworth, Jr., Michael S. Barrett, Andrew S. Blazar (excused), Thomas G. Breslin (excused), Joseph F. Callaghan, John E. Farley, Jr., Ronald M. Gilman, Richard P. Iacobucci, Harry M. Iannotti (excused), Robert A. Indeglia, William S. Klutz, Mary D. Lekas, Lynn C. Lowe, Richard T. McDermott, Anthony F. Merlino (excused), Julius C. Migliori, Daniel Moore, Jr., Peter T. Nigri (excused), Herbert Rakatansky (excused), Barbara H. Roberts, Rajnikant K. Shah, Louis V. Sorrentino (excused), Hugo Taussig (excused), Raymond W. Waggoner, Jr. (excused), MDs.

Washington County Medical Society: Pasquale J. Celestino, Agu Suvari, John J. Walsh, MDs.

Woonsocket District Medical Society: Orazio Basile, Constantine Pagonis, MDs.

Specialty Society Representatives: Anthony F. Merlino, MD, Rhode Island Orthopedic Society (ex-

cused); Daniel J. Hanson, MD, Rhode Island Radiological Society (excused); John E. Farley, Jr., MD, Rhode Island Chapter, American Academy of Pediatrics; Lewis A. Johnson, MD, Rhode Island Society of Pathologists; David Kaplan, MD, Rhode Island Emergency Room Physicians; Arthur B. Kern, MD, Rhode Island Dermatological Society; Guy A. Settupane, MD, Rhode Island Society of Allergy; S. V. Just, MD, Rhode Island Ophthalmological Society; William Wexler, MD, Rhode Island Otolaryngological Society; Charles L. Hopper, MD, Providence Surgical Society; Paul J. M. Healey, MD, Rhode Island Chapter, American College of Surgeons; Walter Cotter, MD, Rhode Island Society of Neurosurgery; Robert Baute, MD, Rhode Island Thoracic Society; Jorge Benavides, MD, Rhode Island Thoracic and Cardiovascular Society; Thomas F. Morgan, MD, Rhode Island Neurological Society.

District Society Presidents: Alexander N. Arvanitidis, MD (Bristol); William F. Varr, Jr., MD (Kent) (excused); Peter D. T. Clarisse, MD (Newport); Joseph J. O'Neill, MD (Washington) (excused).

Members Ex officio: Joseph E. Cannon, MD, Director, Rhode Island Department of Health.

Approval of Minutes

Action: A motion was made, seconded and voted that the minutes of the March 18, 1981 meeting (handbook) be approved and placed on record.

Introduction of Executive Director

Since this was the first meeting of the House since the appointment of Norman A. Baxter, PhD to the position of Executive Director of the Rhode Island Medical Society, the Speaker briefly introduced Dr. Baxter to the House.

Report of the Secretary

There was brief discussion of the Secretary's report (handbook Section 1).

Action: A motion was made, seconded, and voted that the resolution submitted by the Cancer Committee (handbook Section 1, item 13) be accepted. "The Rhode Island Medical Society endorses the program of the American College of Surgeons for development and approval of cancer programs and registries; and encourages all hospitals within the state of Rhode Island to develop and seek approval for such

programs and in-hospital tumor registries, in hopes of promoting the development of a centralized Statewide Tumor Registry."

The report of the Secretary was accepted to be placed on record.

Report of the Treasurer

In support of a prepared report (handbook Section 2) Dr. Erminio Cardi, Treasurer, delivered an oral report, making the following recommendations:

1. A 12% interest charge allowable by recent legislation on settlements of malpractice cases from date of filing should be studied.

2. The Rhode Island Medical Society, on behalf of the RIMS Insurance Brokerage Corporation, should obtain further legal advice with respect to the recent settlement in the lawsuit filed by the Independent Insurance Agents of Rhode Island, et al.

3. Improvements of the Rhode Island Medical Society building should be implemented, particularly for the purpose of fire safety for Medical Bureau personnel.

4. The recently formed ad hoc Finance and Investment Policy Committee should evaluate and make recommendations with respect to the Rhode Island Medical Society investment portfolios.

5. The Rhode Island Medical Society should streamline its operations in 1982 to achieve a more balanced budget.

Following this recommendation there was lengthy discussion of alternative cutbacks of services such as the Library and the *Rhode Island Medical Journal* and alternative possible sources of income such as sale of the Cooper Property, activating the RIMS Insurance Brokerage Corporation, renting Rhode Island Medical Society Building floor space to generate revenue, and raising of membership dues.

Action: A motion was made, seconded, and voted to accept the proposed budget for the year starting January 1, 1982 (handbook Section 2, item 3, Appendix B).

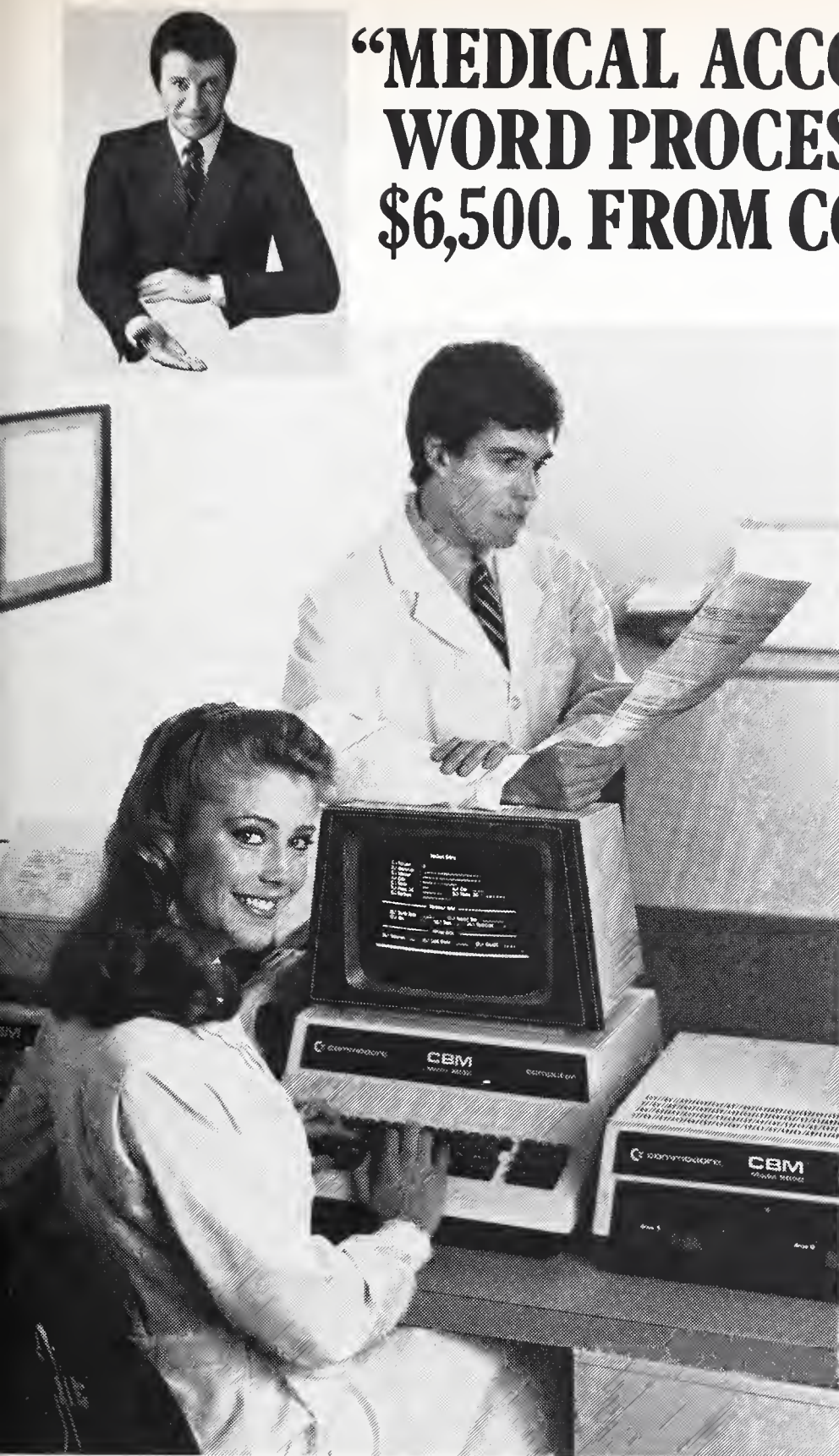
Recommendations from the Council

The House took the following actions with respect to the recommendations of the Council (handbook Section 3):

Action: A motion was made, seconded, and voted to approve the recommendation of the Council to appoint Herbert F. Hager, MD, Parliamentarian of the House of Delegates.

“MEDICAL ACCOUNTING PLUS WORD PROCESSING FOR UNDER \$6,500. FROM COMMODORE.”

—WILLIAM SHATNER



The symptoms are common. Missing receipts. Overdue invoices. Neglected insurance forms. And, worst of all, a lot of precious time spent on paperwork that could otherwise be devoted to patient care.

The cure: A Commodore desktop computer. Including disk drive, letter quality printer, and complete medical accounting and word processing systems. For a modest investment, you get all the features of a sophisticated and versatile business computer that can do virtually all your paperwork in a fraction of the time it takes you now.

Commodore's Medical Accounting System (MAS)¹, for example, can provide you with a fast, flexible accounting and bookkeeping system that's as easy to use as it is cost effective. Automating your receivables, invoicing, aging of payables, and revenue analyses. MAS can also generate end-of-the-month "Superbills" as well as standard insurance and Medicare forms. And it gives you a thorough overview of your office activities through a series of reports ranging from diagnostics to referrals.

And with our word processing programs, your Commodore computer is versatile enough to be used whenever you'd normally use a typewriter. For memos. Reports. Correspondence. Proposals. In seconds, you can delete, insert, rearrange paragraphs, even revise as many times as necessary. With no time wasted typing multiple drafts.

If all that time saved on paperwork is used to take on additional patients, just think how quickly your Commodore computer will pay for itself, many times over.

Your Commodore computer can be expanded to meet the needs of a growing office. And Commodore dealers throughout the country offer prompt local service. Visit your Commodore dealer for a hands-on demonstration of the Commodore computer that does so much, so easily, at such a low cost.

¹ Medical Accounting System was created by Cimarron Corp.



commodore
COMPUTER

Commodore Computer Systems
681 Moore Road, King of Prussia, PA 19406

MED-8

☐ Please send me more information on the MAS System.

Name _____

Address _____

City _____ State _____

Zip _____

Phone _____

Action: A motion was made, seconded, and voted to modify and accept the recommendation of the Council to increase Rhode Island Medical Society membership dues, as follows: to approve a \$50 dues increase in 1982; to consider for action next year a \$50 increase for 1983; to consider for action the following year a \$25 increase for 1984.

Action: A motion was made, seconded and voted to approve the recommendation of the Council that the request of the Rhode Island Urological Society for representation in the House of Delegates be accepted.

Report of the AMA Delegate

Dr. John J. Cunningham, Delegate to the AMA House of Delegates, reported briefly on highlights of the AMA House of Delegates meeting in Chicago on June 7-11, 1981, particularly noting the AMA House decision to eliminate continuing medical education programs for budgetary reasons, to take a position opposing continuation of PSRO, and to institute a direct membership option.

Committee Reports

Prepared reports of the Medical Aspects of Sports Committee by Dr. A. A. Savastano, Chairman (handbook Section 4) and the Social Welfare Committee by Dr. Peter L. Mathieu, Jr., Chairman (handbook Section 5) were accepted to be placed on record.

Dr. Frank J. Cummings, Chairman of the Cancer Committee, did not make an oral report, deferring to the action already taken by the House. (See Report of the Secretary.)

Dr. John S. O'Shea, Chairman of the Professional Health Care Providers Committee, was not present to give a report.

Dr. Joseph E. Caruolo, Chairman of the Membership Committee, reported that his committee is actively seeking to attract new members.

Specialty Society Report

Dr. Paul B. Hessler reported for Dr. Ian B. Tyson, representative for the Rhode Island Society of Nuclear Medicine, the following activities: update of Rhode Island Society of Nuclear Medicine bylaws; establishment of a Committee on Education; outlining of prospective educational programs; and an invitation to the local division of the American Association of Physicists in

Medicine to participate in the affairs of the Rhode Island Society of Nuclear Medicine.

Resolutions

1) Long Range Planning for the Rhode Island Medical Society

A resolution in writing was received from Dr. Charles P. Shoemaker, Jr., to establish a Rhode Island Medical Society Long Range Planning Committee. Discussion followed questioning the need for such a committee, since the existing ad hoc Budget Committee and the executive officers of the Society are presently addressing the need for long range Society goals.

Action: A motion was made, seconded, and voted to request of the Council a long range planning report to be submitted to the House at its meeting in January 1982.

2) Reconsideration of 1982 Budget

A resolution in writing was received from Dr. Fred T. Perry to amend the 1982 budget to limit expense line items to exact dollar expense amounts of the 1981 budget. The parliamentarian ruled that such a motion was out of order but that a motion to reconsider would be in order.

A motion to reconsider the budget was voted upon and lost.

Miscellaneous Business

There was discussion of the authorization to the President by the House of Delegates (meeting March 18, 1981) to appoint an ad hoc committee to gather facts regarding the proposed merger of Blue Cross, Inc. and Blue Shield, Inc. It was noted that although this committee had been appointed, it had not met to fulfill its charge. It was further noted that there may no longer be need for such a committee.

Action: A motion was made, seconded, and approved to disband the ad hoc committee to gather facts on the proposed merger of Blue Cross, Inc. and Blue Shield, Inc.

Adjournment

Action: A motion was made, seconded, and voted to adjourn (4:25 p.m.).

Respectfully submitted,
David R. Hallmann, MD
Secretary

Acute Cardiorespiratory Morbidity, Air Quality, Temperature and Pollen Concentration in Providence, Rhode Island

Study Suggests Relationship between Air Pollutants and Temperature and the Incidence of Bronchospasm

Rebecca Silliman, MD Mary Ann Passero, MD David Kaplan, MD
Mary Condry, RN Constance Pass, BS Phillip Robzyk, BS
Michael Passero, MD

A well-recognized relationship exists between cardiorespiratory morbidity and mortality and severe air pollution. This relationship, however, is not clear for lesser amounts of pollution. The air quality pollutant standards index (PSI), developed by the Environmental Protection Agency, reports levels of major air pollutants including carbon monoxide, sulfur dioxide, photochemical oxidants, nitrogen oxides, and total suspended particulates. Values range from zero to 500. A value greater than 100 is considered unhealthful and over 400 capable of producing premature death in elderly or debilitated patients.

Use of air quality measurements to predict and prevent health consequences is based on the un-

proven premise that a threshold exists below which pollutants cease to be harmful. Fortunately, the air pollution level in the Providence, Rhode Island area is usually in the low to moderate range, although air appears hazy during the summer months. Because of the controversial relationships between air quality, temperature, and pollen concentrations, as well as their impact upon patients with cardiopulmonary disease, we studied these factors at a Providence hospital during the warmer months of 1980.

Methods

All patients admitted to Roger Williams General Hospital or treated in its out-patient facilities with complaints of cardiopulmonary disease were tabulated daily. A subset with bronchospastic disease was noted as well. The final outpatient diagnoses or the admitting diagnoses provided the information necessary to classify the patients. Air quality data were provided by the Department of Environmental Management, Division of Air Resources, Rhode Island. Ozone measurements were obtained from the Brown University station, sulphur dioxide from the Dyer Street station, and carbon monoxide from the Dorrance Street station. Total suspended particulates were not reported consistently. The National Weather Service recorded daily mean temperatures. Pollen counts were collected from a Durham sampler on the roof of Roger Williams General Hospital five stories above ground.

Rebecca Silliman, MD, Chief Resident, Roger Williams General Hospital; Mary Ann Passero, MD, Assistant Professor of Pediatrics, Brown University Program in Medicine; David Kaplan, MD, Assistant Professor of Medicine, Brown University Program in Medicine; Mary Condry, RN, Allergy Outpatient Nurse, Roger Williams General Hospital; Constance Pass, BS, Research Assistant, Roger Williams General Hospital; Phillip Robzyk, BS, formerly Research Assistant, Roger Williams General Hospital; Michael Passero, MD, Assistant Professor of Medicine, Brown University Program in Medicine, Providence, Rhode Island.

Statistics

Means and standard deviations for each variable and each patient group were calculated. Partial correlation coefficients were also calculated comparing daily variation in patient numbers with air quality parameters, temperature, and pollen counts. Statistics were also calculated for weekly totals. The study period began June 1, 1980 and ended October 18, 1980.

Results

Fifty to seventy-two patients presented weekly with cardiopulmonary complaints. There was insignificant number variation with respect to air quality, weather, or pollen counts. In the subset with bronchospastic disease, a mean of 13.5 patients was seen each week (S.D. = 5.2). Throughout this time the PSI was usually in the moderate range. With respect to specific pollutants, the correlation between carbon monoxide and the number of bronchospastic patients was highly significant by week ($r = +0.53$). A less strong yet significant, inverse relation was present between daily mean temperature and the number of bronchospastic patients when analyzed both by daily numbers ($r = -0.26$) and weekly means. In addition, there was a significant inverse relationship between weekly means for ozone and bronchospastic patients ($r = -0.21$). Patient variation was too small to ascertain whether these were independent associations.

Grass pollen counts were highest at the beginning of the study and disappeared by the eighteenth study week. In comparison, ragweed counts peaked at the fourteenth study week. Unfortunately the study period did not include the major tree and grass pollen season. For the period studied, no relation existed either daily or weekly between grass and ragweed counts and the incidence of hospital-treated bronchospastic disease.

Discussion

Hiller and Bone (1981)¹ comment that "air pollution in the United States continues to be a major health, economic, and political issue. The health effects of air pollution are difficult to measure, especially when pollutant levels are moderate to low and consequences in human beings are slight. Studies which might demonstrate an effect of air pollutants on a large population are difficult to design, very expensive, and time consuming. Because it is impossible to control all variables in a large population study, even well done studies are subject to question." Despite these problems,

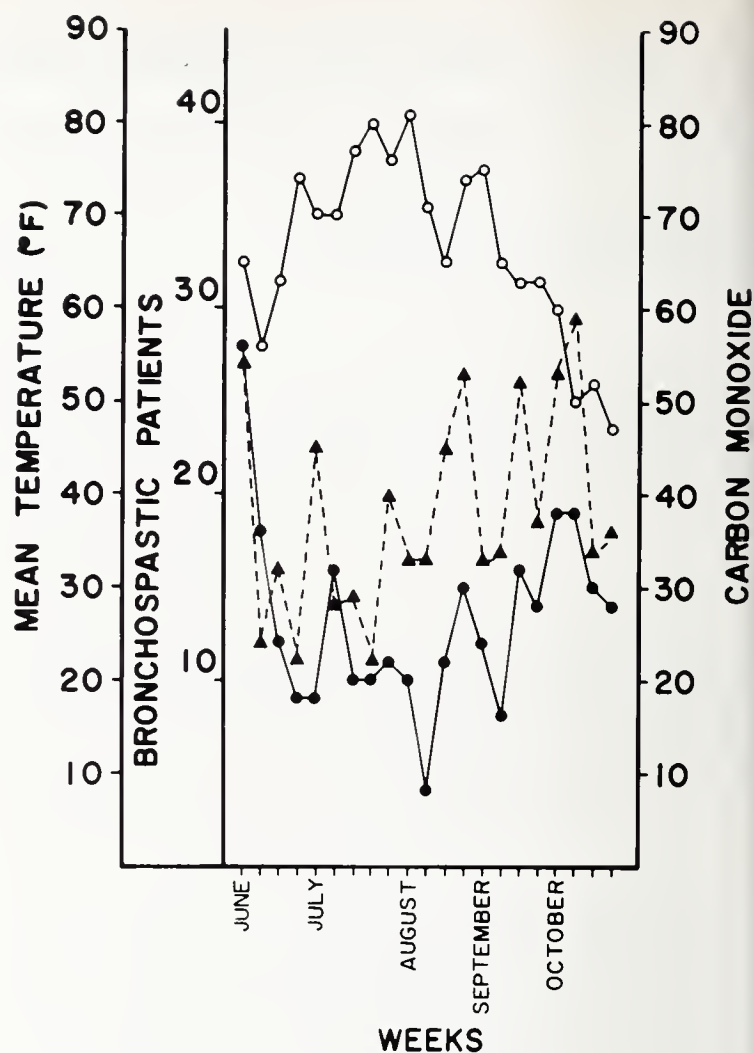


Figure 1. Weekly averages for Mean Temperature \circ — \circ , Bronchospastic Patients \bullet — \bullet and Carbon Monoxide Index \blacktriangle — \blacktriangle . There was a significant correlation ($r = 0.53$) between carbon monoxide and number of bronchospastic patients and an inverse relationship between mean temperature and number of bronchospastic patients.

all agree that high levels of air pollution are dangerous to health.

In a study of Allegheny County, Pennsylvania, Carpenter et al² noted an increased hospitalization rate for respiratory diseases in areas with high pollution. Total excess medical costs for persons in areas of higher pollution was estimated to be \$9 million, though the impact on length of hospital stay was much less with only an excess cost of \$730,000. The total excess medical costs in high pollution areas of Allegheny County thus was close to \$10 million when compared to low pollution areas.

Adverse health effects have been ascribed to various pollutants, but the relationships are difficult to prove.³⁻⁴ For example, sulphur dioxide and particulate pollution are thought to result in increased susceptibility to respiratory diseases and increased symptoms of chronic obstructive

pulmonary disease. High ozone and photochemical smog concentrations appear to cause eye and throat irritation. Nitrogen dioxide is believed to cause increased rates of respiratory illness, especially in children. Carbon monoxide has been associated with increased cardiovascular symptoms, particularly angina. Long-term effects on health of all of these pollutants is still disputed.

Epidemiologic studies have been complicated by the difficulty in evaluating possible synergism of multiple pollutants. Several studies, however, indicate a dominant effect from one pollutant.^{6, 7} Our study was remarkable for the low level of sulphur dioxide. We were surprised by the significant correlation between carbon monoxide levels and bronchospastic disease rates. Though increased respiratory symptoms have been reported with corresponding elevated carbon monoxide levels, more often these increased levels have been associated with greater cardiovascular morbidity. Whether the relation of carbon monoxide levels to bronchospastic disease is cause and effect or is due to an associated unmeasured pollutant or substance is unknown. Ozone concentrations varied throughout the low to moderate range and were inversely related to bronchospastic illness. Previous studies suggest a positive association between high levels of ozone and cardiopulmonary morbidity. Because the generation of ozone is temperature dependent, we suspect that the inverse correlation between ozone levels and bronchospastic disease merely reflects the influence of air temperature. The inverse relationship of temperature and bronchospastic disease has been previously described.^{8, 9} We were unable to separate the effects of temperature and ozone by statistical methods.

Pollen counts did not correlate well with emergency room visits and hospitalization. Several possibilities might explain this. First, the study did not extend through the entire pollen season. Second, hourly concentrations of pollen vary greatly. Symptoms and the seeking of health care may thus be more influenced by short-term variations in pollen concentrations rather than 24 hour totals. Third, patterns of self-care and self-referral to health care facilities may have contributed to our results.

This study, like all epidemiologic studies, can be criticized because of its short duration, the lack

of control for patient behavior (cigarette smoking, regular source of medical care, occupation), the reliance of diagnoses of multiple physicians, and the lack of attention paid to factors unique to Rhode Island (humidity, proximity to the ocean, prevailing winds). Physicians treating patients with bronchospastic disease realize that respiratory function changes hourly. Present data-gathering methods make it unlikely that any epidemiologic study will be able to account for these rapid changes. We chose to examine trends in patient morbidity which might be related to daily variations in air quality, temperature, and pollen counts. Our data from the warmer months of 1980 in Providence, Rhode Island suggest that bronchospastic morbidity is related in part to variations in moderate levels of air pollutants (carbon monoxide) and temperature (Fig 1). A larger study is currently being undertaken to confirm these suggestions about the acute effects of moderate air pollution.

Acknowledgement

The authors greatly appreciate the assistance of Christopher J. Salvatore, Harry Mourachian, and Richard DeYoung III in the preparation of this manuscript.

References

- ¹ Hiller FC, Bone RC: in Bone RC (ed): *Pulmonary Disease Reviews*. New York: John Wiley and Sons, 1981, vol 2.
- ² Carpenter BA, Chromy KR, Bach WD, et al: Health costs of air pollution: A study of hospitalization costs. *Am J Public Health* 69:1232, 1979.
- ³ Health effects of air pollution. *American Thoracic Society News* 4:22-62, 1978.
- ⁴ Bates DW: The health effects of air pollution. *Journal of Respiratory Disease* 1(9):29-37, 1980.
- ⁵ Ribon A, Perera S, Gavencak J: Air pollution: Its effects on health and respiratory disease — a review. *Ann Allergy* 39:279-282, 1977.
- ⁶ Kurt TL, Mogielnicki RP, Chandler JE: Association of the frequency of acute cardiorespiratory complaints with ambient levels of carbon monoxide. *Chest* 74(1):10-14, 1978.
- ⁷ Levy D, Gent M, Newhouse MT: Relationship between acute respiratory illness and air pollution levels in an industrial city. *Am Rev Respir Dis* 116:167, 1977.
- ⁸ Greenburg L: Asthma and temperature change. *Arch Environ Health* 12:561, 1966.
- ⁹ Greenburg L: Asthma and temperature change. *Arch Environ Health* 8:642, 1974.

Michael A. Passero, MD
Department of Medicine
Roger Williams General Hospital
825 Chalkstone Avenue
Providence, RI 02908

Clinical Pelvic Anatomy, the Types of Genital Prolapse and the Choice of Operation for Repair

In Most Instances Transvaginal Operation Is Indicated

David H. Nichols, MD, FACS, FACOG

A dropped uterus is the result of a genital prolapse, and not the cause. Emphasis must be placed on identifying all the sites of weakness in a particular clinical problem, and a reconstruction literally tailor-made to each clinical circumstance. Six separate anatomic systems involved in genital support can be identified, which can be damaged either singly or in any combination. These are: 1) the bony pelvis to which all the soft tissues ultimately attach, 2) the round and broad ligament couple, 3) the cardinal and uterosacral ligament couple, 4) the urogenital diaphragm, 5) the pelvic diaphragm, and 6) the perineal body. Preoperative and intraoperative assessment of damage and its probable etiology should be performed, and appropriate reparative steps encompassed within the surgical technique which should improve the long-term results of corrective surgery.¹ An orderly system for determining and correlating these damages is essential to success, and various operative techniques from which to choose should be identified.

Various forces acting on inherent weaknesses of the birth canal supports cause genital prolapse and may virtually turn the vagina inside out. In evaluating the patient's problem, the physician must determine the primary weakness because

the most important single step in treatment is to correct or, at times, overcorrect the primary site of damage. Unless this is done, progression is not arrested, and recurrence must be expected despite surgical repair of secondary damages.²

Vaginal reconstructive surgery is concerned with returning defective vaginal anatomy to a normal state, and one must clearly understand the objective desired if normal relationships are to be restored.

Colpography demonstrates an almost horizontal axis to the normal upper vagina of the patient in standing position, which is accentuated by straining. The upper vagina and the rectum lie upon the similarly horizontal levator plate, formed posterior to the rectum by the fused levator ani muscles.^{3, 4} The cervix and upper vagina, though moveable, are held over the levator plate posterior to the genital hiatus by the cardinal and uterosacral ligament complex (Figure 1). Pathologic elongation of these "ligaments" may permit the upper vagina to evert. If, in addition, the axis of the levator plate is defective, prolapse is even more likely to develop (Figure 2). Postoperative recurrent prolapse is less likely to develop when the goal of the vaginal reconstructive operation is to maintain depth and reconstitute the horizontal upper axis.

Basically, genital prolapse is caused by extroversion of the upper vagina or eversion of the lower vagina. These conditions may occur separately or together at different times of life, and the etiologic factors involved are quite different.

The objective of vaginal reconstruction should be an operation designed to restore normal anatomic relationships, particularly to provide depth

David H. Nichols, MD, FACS, FACOG, Professor and Chairman of Obstetrics and Gynecology, Brown University, Providence, Rhode Island; Obstetrician and Gynecologist-in-Chief, Women & Infants Hospital of Rhode Island; Gynecologist-in-Chief, Rhode Island Hospital, Providence Rhode Island.

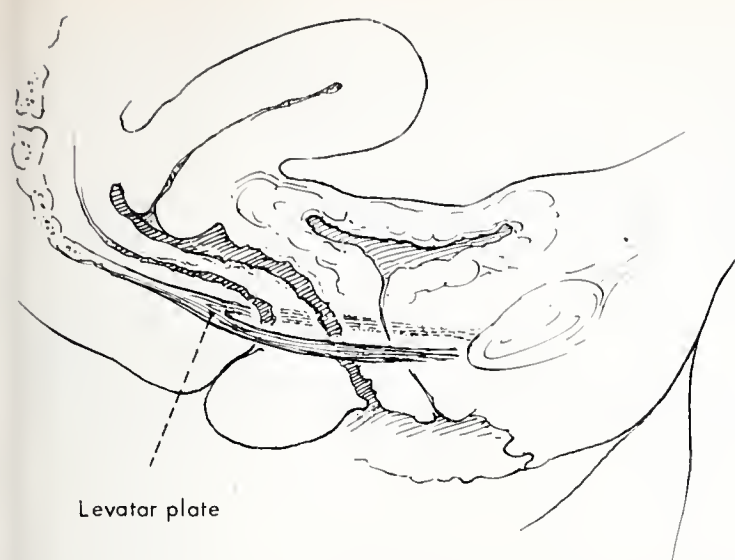


Figure 1. Drawing of normal vaginal axis of the living showing almost horizontal upper vagina and rectum lying on and parallel to the levator plate. The latter is formed by fusion by pubococcygei muscles posteriorly to the rectum.

From: Nichols DH, Milley PS, Randall CL: Significance of restoration of normal vaginal depth and axis. *Obstet Gynecol* 36:251-253, 1970, reproduced with permission of Harper & Row.

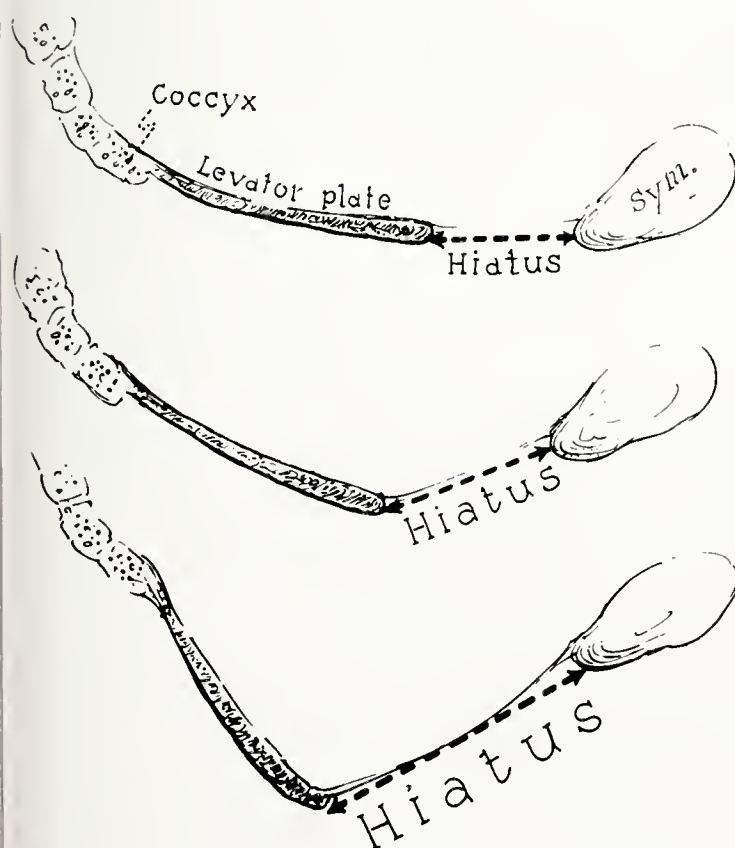


Figure 2. As the levator plate tips, the genital hiatus becomes larger as shown. In addition, the pull of gravity and the forces of intra-abdominal pressure accentuate the strain upon the pelvic suspensory system.

From: Nichols DH, Randall CL: *Vaginal Surgery*. Baltimore, Williams & Wilkins Co, 1977, with permission of the publisher.

and adequate support of the vaginal axis. This axis usually should incorporate a perineal superior convexity in its lower half with an almost horizontal plane throughout the upper vaginal half when the patient is standing.⁵ Restoration and strengthening of the levator plate will minimize any persistent tendency toward subsequent eversion or prolapse of the vagina, because intra-abdominal pressure will then serve to press the upper portion of the vagina posteriorly toward the hollow of the sacrum and more firmly against an adequately reconstructed levator plate (Figure 3).

It is generally desirable to preserve vaginal function after surgery, and the approach to surgical support of the vault of the massively everted vagina may be through either a transabdominal or a transvaginal route. For the former, sacropexy, using the technique as described by Parsons and Ulfelder,⁶ is useful, particularly if there is some additional reason for abdominal exploration (such as ovarian cyst). A disadvantage is that coexistent cystocele and rectocele cannot be comfortably repaired without use of a secondary operation.

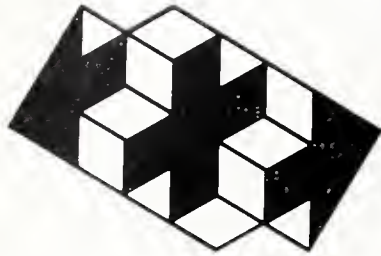
In most instances a transvaginal approach will be useful, involving vaginal hysterectomy and colporrhaphy, as well as excision of any enterocele that might be present. If strong cardinal and uterosacral ligament support is available, this may be used for attachment of the vault of the vagina. But if this support is weak, a sacrospinous fixation procedure is useful. This will permit restoration of a relatively comfortable vaginal depth and axis.

Rarely, colpocleisis or colpectomy may be employed, but the latter should include excision of enterocele and any necessary posterior colporrhaphy and does preclude any further effective use of the vaginal canal.

References

- 1 Nichols DH, Randall CL: *Vaginal Surgery*. Baltimore, Williams & Wilkins, 1977.
- 2 Bonney V: The sustentacular apparatus of the female genital canal, the displacements that result from the yielding of its several components and their appropriate treatment. *J Obst Gynaec Brit Emp* 25:328-344, 1944.
- 3 Berglas B, Rubin IC: Study of the supportive structures of the uterus by levator myography. *Surg Gynec Obstet* 97:677-692, Dec 53.
- 4 Porges RF: A practical system of diagnosis and classification of pelvic relaxations. *Surg Gynecol Obstet* 117:769-773, Dec 63.
- 5 Richter K: Lebendige anatomie der vagina. *Geburtsh Frauenheilk* 26:1213-1233, Sep 68 (Ger).
- 6 Parsons L, Ulfelder H: *An Atlas of Teonic Operation*. Philadelphia, William B. Saunders, 1968.

Brown University
Division of Biology and Medicine
Providence, RI 02912



Blackstone Valley Surgicare

Easier for you, nicer for them.

- Same-Day Surgery facilities for general surgeons, gynecologists, plastic surgeons, ophthalmologists, oral surgeons, otolaryngologists, orthopedists
- Managed by physicians with the doctor in mind
- Open staff
- General anesthesia
- Block bookings
- Modern, pleasant environment
- Nursing staff exclusively oriented to the ambulatory surgical patient
- Easy access from Route 95; plenty of parking
- Full Blue Cross and commercial insurance coverage
- Accredited, National Society for Free Standing Ambulatory Surgical Care

Call 728-3800 for more information and bookings.

Blackstone Valley Surgicare, Inc.
333 School Street
Pawtucket, Rhode Island

Psychiatric Consultation: When To Request and What To Expect

Many Tasks Assigned to Psychiatric Consultants Actually Belong in the Armamentarium of the Primary Care Physician

Richard J. Goldberg, MD
Craig Van Dyke, MD

Epidemiological studies have revealed that 30 to 65 per cent of medical inpatients have psychiatric symptoms. Despite this high incidence of emotional disturbance, only 2 to 12 per cent of these patients are seen by a psychiatric consultant.¹ The reasons for this low rate of referral are not completely clear but may include a number of factors. It may be difficult for the primary physician to know at what point to request a psychiatric consultation. Even for serious psychiatric symptoms, the decision to call a consultant may not be simple if the symptoms seem to be understandable in the context of the patient's medical problems. For instance, in a young adult who has suffered a traumatic amputation, marked depression of mood could easily lead the clinician to conclude, "If I had that happen to me, I would be depressed, too." It is also conceivable that some primary physicians feel that a psychiatrist has nothing positive to offer, or that he contributes

only psychodynamic formulations and suggestions that are difficult to carry out.

To increase its effectiveness in meeting the needs of medical patients, Consultation Psychiatry must be able to describe clearly what it has to offer and at what point patients should be seen by a psychiatric consultant. In this paper, we describe our systems approach to medical care and how we evaluate and respond to the seven major indications for psychiatric consultation.

A Systems Approach to Medical Care

Consultation psychiatry is not a discipline, but rather a systems approach to patient care. While this approach derives from general systems theory², a description of what we mean by a "systems approach" is in order. Both illness and the maintenance of health involve an interaction of a number of factors that can be clustered into three basic subsystems: biologic, psychologic, and sociologic. Knowledge about the biologic subsystem forms the basis of the bio-medical disciplines. While it is undisputed that specialized knowledge in this field has allowed for great and dramatic strides in overcoming a variety of diseases, there is increasing recognition that the management of health and illness involves a complex interaction of biologic and psychosocial factors.^{3, 4} Every biologic disease process has a psychologic meaning to the individual. The particular meaning is a major influence on the illness behavior⁵ of the individual; ie, how the symptoms will be experienced, communicated, and acted upon. Psycho-

Richard Goldberg, MD, Associate Director, Department of Psychiatry, Rhode Island Hospital and Women and Infants Hospital; Director, Consultation Liaison Psychiatry, Rhode Island Hospital; Assistant Professor of Psychiatry, Medicine, Brown University, Providence, Rhode Island.

Craig Van Dyke, MD, Chief, Consultative-Liaison Unit, University of California, San Francisco; Associate Professor of Psychiatry, University of California, San Francisco.

logic factors play an important role in compliance⁶ and patient management. As medical care is delivered through increasingly complex organizations, the practitioner's awareness of the social subsystem will be more important. Even now, every hospitalized patient receives treatment within a social context⁷ whose characteristics are often crucial to successful management. In this subsystem we consider such factors as the nature of the relationships amongst the patient, his family, and his medical care providers.⁸ Successful psychiatric consultation involves identifying and understanding the interaction of these three subsystems in a variety of clinical problems.

Indications for Psychiatric Consultation

These seven sections describe the majority of clinical problems for which psychiatric consultation is requested. Our categories do not necessarily reflect traditional diagnostic lines, and most are not medical or psychiatric syndromes. Rather, all can be considered complex clinical situations which include interacting biologic, psychologic, and social factors.

Patient Management Problems

There is little difficulty in recognizing patient management problems. Psychiatric consultation is appropriately requested in a number of such situations including: (a) the agitated, disruptive patient; (b) the patient whose non-compliance has potentially serious consequences (for example, the patient who insists upon discharge against medical advice); and (c) patients whose personality problems interfere with clinical management (this would include patients who are excessively demanding, seductive, or paranoid). Although it is occasionally expected, we do not regard our service as an alternative to the hospital security personnel. We evaluate patient management problems and provide specific recommendations to correct the situation; however, the acute, physically threatening patient may be better managed initially in coordination with well-trained hospital security staff.

The evaluation of patient management problems involves consideration of biologic, psychologic, and social factors as they interact in a particular clinical setting. Since many patient management problems arise on the foundation of some underlying medical process, recognition and correction of the primary deficit is essential. Metabolic derangements, drug intoxications, and unsuspected drug withdrawals are especially frequent in agitated patients. We make specific re-

commendations for the immediate management of such patients, including the indications and contraindications for the use of restraints or medications to control agitation. We advise on whether antipsychotic medication or benzodiazepines are indicated, and, if so, in what dosage schedules.⁹ We also offer guidelines regarding the legal implications (if any) of treating such patients (see section on Forensic Issues).

We also evaluate how a patient's particular personality style contributes to a dysfunctional response to illness.¹⁰ At times, brief intervention helps the patient adjust to his situation by the identification of specific anxieties concerning illness and hospitalization. We discuss such issues, if pertinent, with the staff and offer specific management guidelines in areas such as limit setting. Since psychiatric syndromes of schizophrenia and manic-depressive illnesses are rare, these are not common causes for problems in patient management (see sections on psychiatric disorders).

Social dysfunction contributes to patient management problems in a significant number of cases. Most physicians, including psychiatrists, are neither used to nor trained in thinking in terms of social systems. We see ourselves, in part, as social system consultants who identify and suggest ways to correct certain features of medical treatment systems which contribute to clinical management problems. For example, we consider the impact of diffused responsibility and decision making on patient care, and the problems of coordinating communication in increasingly complex medical treatment teams.

This section has separated biologic, personality, and social subsystems for the sake of analysis; however, it is important to consider their interaction. It is our impression that many "Against Medical Advice" discharge problems (and other disruptive patients) emerge through the interplay of an underlying organic mental disorder (OMD) plus a dysfunction in the interaction between the patient and the treatment system.¹¹ Evaluation and intervention in all three subsystems is frequently required to resolve such problems without disruption of clinical continuity.

Symptoms without Apparent Medical Explanation

Psychiatric consultation is appropriate for patients with chronic somatic complaints, or those who have impaired sensory, motor, or autonomic functions without apparent medical explanation. The feelings of frustration that such patients engender in the primary clinician is often the trigger for initiating consultation.

The first question that we are often asked to address is whether the patient has a conversion disorder. The criteria for this diagnosis include: (a) the presence of a psychological conflict, out of the awareness of the patient, that produces anxiety; (b) the involuntary "conversion" of this anxiety into a somatic sign or symptom; and (c) the sign/symptom symbolically expresses and resolves the psychological conflict.¹² Hypnosis or sodium amytal interviews may be useful in both evaluating and treating this condition.¹³

There are other categories of psychiatric illness that may lead to physical signs/symptoms without apparent medical reasons. Both depressed (see section on Depression) and schizophrenic patients may present somatic preoccupations that are quite confusing until the psychiatric diagnosis is made. Certain patients, usually female, have life-long patterns of multiple somatic complaints (ie, Briquet's Syndrome).¹⁴ Less common are patients who consciously simulate a medical illness or a specific sign/symptom. This simulation may be directed toward a specific goal (ie, malingering) or represent a life-style devoted to simulating a medical illness (ie, Munchausen's Syndrome¹⁵ or Chronic Factitious Illness).¹⁶ In our experience, recognition of one of these psychological conditions allows the de-escalation of additional and potentially dangerous medical tests and treatments. Treatment can then be focused on more appropriate psychosocial issues.

The consultation psychiatrist is trained to be alert for medical illnesses presenting as psychiatric syndromes. Systemic lupus erythematosus (SLE), multiple sclerosis, seizure disorders, and degenerative diseases of the central nervous system may be puzzling because the somatic signs/symptoms, along with neighboring emotional symptoms, are easily attributed to a psychiatric condition. Though the primary treatment must be directed towards the medical condition, it is occasionally necessary to treat the psychiatric symptoms as well (eg, antipsychotic medication for the schizophreniform psychosis of SLE).

During our evaluation, two recurrent issues often need clarification. The first issue involves the significance of "secondary gain" (eg, increased sympathy or exemption from certain societal expectations or responsibilities as a result of being sick). Since all illnesses have secondary gain, this should not automatically be assumed to provide a psychological explanation for any signs or symptoms.¹⁷ The psychiatric consultant has a role in assisting the patient or his family in overcoming secondary gain when this acts as a severe

impediment to the patient's recovery. The second issue is the diagnosis "hysterical personality." It is a false assumption that these patients are more likely than patients with other personality styles to have conversion disorders.¹⁸ The real problem is that these histrionic and seductive patients present their somatic signs/symptoms (which may have a medical explanation) in a less-than-believable fashion.

Pain/Drug Addiction

One of the time-honored functions of the physician is to relieve pain. Curing the underlying condition and using analgesics are the traditional methods of controlling pain. Nevertheless, there are a number of patients whose complaints of pain continue despite management that is usually effective. These refractory and often difficult patients are appropriate for psychiatric consultation. Such consultation again requires an awareness that pain is a complex phenomenon involving the interplay of biologic and psychosocial factors.¹⁹

In reviewing these patients with the primary physician, we find it quite helpful to discuss the biological basis for the pain and the current treatment strategies. Inevitably one of the major issues for us to resolve in these discussions is whether the patient is "addicted."²⁰ The term "addiction" has a variety of meanings. Usually it means that the patient is escalating his demands for pain medication and the primary physician feels uncomfortable in meeting these demands. We prefer to use the term "drug dependence," which addresses the pharmacological issues of tolerance to the drugs' therapeutic effects and possible withdrawal symptoms should the drug be stopped suddenly. It does not say anything about the patient compulsively seeking analgesics from medical or non-medical sources (ie, "addiction"). Although there is no definitive answer, it has been estimated that iatrogenic "addiction" (ie, compulsive drug-seeking behavior) occurs in only four per cent of medical patients,²¹ and we feel that patients should not be denied adequate pain relief because of this concern.

Since a major concern of physicians is to avoid having the patient become "addicted" to narcotics, it is not uncommon for patients to have their pain undertreated. Undermedication often leads to increased protestations of pain. Because such dramatic complaining usually appears less believable to the physician and staff, a vicious cycle may ensue with the patient receiving less and less analgesic medication and complaining more and

more. Cases of "refractory pain" are often adequately managed by simply increasing the dose of analgesics.²²

Psychosocial factors may also play a role in refractory pain syndromes. Pain may have a special meaning for the patient or may be "modeled" after the pain of a person who was emotionally close to him. For instance, it is not unusual to find that a refractory pain symptom mimics the pain that a close relative experienced in the past (and perhaps was even associated with that relative's death). The current symptom not infrequently proves to be an expression of unresolved mourning or some other aspect of the relationship to the relative. As a further consideration, the cultural background of the patient may influence his expression of pain²³ and may confuse a medical staff. Finally, the pain almost always has a component of secondary gain that the psychiatrist may have to address with the patient or his family if it interferes with the patient's getting well.

Certain psychiatric disorders are associated with unusual or refractory pain syndromes. Often the depression associated with chronic pain may lead to increased preoccupation with the pain and even more intense complaining. Therefore, we always evaluate refractory pain patients for depression. Other syndromes we consider include: schizophrenia, psychogenic pain disorder, or factitious disorders (see section on *Symptoms without Apparent Medical Explanation*). In addition, certain medical conditions (eg, intermittent porphyria) may produce pain along with emotional symptoms. Though we are often asked whether the pain is in the patient's "body" or "mind," it is rarely that straightforward.

Treating pain in a narcotic "addict" is a problem. In this situation, we find it effective to place the patient on 10 to 20 mg per day of oral methadone²⁴ (to prevent narcotics withdrawal) and to treat his pain with slightly increased doses (because of drug tolerance) of the shorter-acting narcotics (eg, morphine sulfate or meperidine). When the patient is free of pain, he can have his drug dependence treated. Consultation with the local drug abuse treatment facility is often helpful in determining the patient's prior drug abuse history and whether he is currently enrolled in a treatment program (eg, methadone maintenance). For those who are not in a program, referral before they are discharged from the hospital is appropriate.

Alcohol and sedative withdrawal (especially from barbiturates and quaaludes) is actually more life-threatening than narcotics withdrawal.

We are occasionally asked to help in the assessment of patients with non-narcotic substance abuse and to assist in the pharmacological management of delirium tremens and other sedative drug withdrawal syndromes.²⁵

Organic Mental Disorder (OMD)

A significant number of hospitalized patients have an OMD. This syndrome is characterized by impairment of judgement, orientation, intellect, memory, or affect. *OMD should be a first consideration in any evaluation of impaired mood, thought, or behavior.* In its most dramatic form (often called delirium), OMD is easily recognized, and the need for psychiatric consultation is clear. In less severe cases, OMD may be recognized only if there is a specific effort to evaluate the mental status of the patient.²⁶ Recognition of OMD is important, because it often has a specific cause and treatment; furthermore, failure to treat may lead to permanent cognitive deficits. The common denominator in OMD is impairment of cerebral function.²⁷ Specific etiologies include: metabolic derangements, drug toxicity and withdrawal, vascular compromise, infections, neoplasia, and neuronal degeneration.²⁸ We have found that in the hospital setting the majority of OMD cases are reversible and related to metabolic imbalances (such as alterations in electrolytes, BUN, hepatic function, oxygenation, drug intoxication, or withdrawal).²⁹ Drugs that commonly produce mental confusion include: all central nervous system depressants, digitalis, and L-DOPA.

The role of the psychiatric consultant is to confirm the diagnosis, to assist in its differential evaluation (including its separation from other psychiatric syndromes such as depression or schizophrenia), and to plan treatment. It is worth noting that visual hallucinations, which many clinicians associate with schizophrenia, are actually more common in OMD (such as delirium tremens or toxic encephalopathy). In searching for a specific etiology of the OMD, we may recommend metabolic studies, a lumbar puncture, EEG, or computerized axial tomography. Primary treatment consists of correcting the underlying abnormality. In addition, certain adjunctive treatment measures are often helpful. Small doses of antipsychotic medication (eg, perphenazine (Trilafon®) 2 mg by mouth or intramuscularly, 2-4 times/day) may be helpful in controlling the agitation of a confused patient.³⁰ Environmental changes are often significant in minimizing patient confusion.³¹ Such manipulations include provision of calendars, clocks, night lights

(to minimize "sundowning"), familiar objects from home, and frequent orientation by staff. Clear, straightforward, and consistent communication from the staff and family will also help the patient organize his experience (see section on Patient Management Problems).

Depression/Suicide

Mild depression of mood is a common symptom in medical patients. When such depression is a response to the stresses of medical illness, it may respond with improvement in the patient's clinical condition, or to reassurance by the primary physician. However, when the symptoms of depression (ie, sadness, hopelessness, and apathy) are severe enough to interfere with daily activities or with medical treatment and are accompanied by appetite and sleep disturbances, then a request for psychiatric consultation is appropriate.

Medication is usually necessary to treat the mood disturbance and neurovegetative signs associated with a severe depression (eg, sleep and appetite disturbance and psychomotor retardation). Tricyclic antidepressants such as amitriptyline (Elavil®) and imipramine (Tofranil®) are the drugs of first choice.³² These drugs are quite effective, but have to be used cautiously in patients with underlying heart disease, with an OMD, or in whom anticholinergic drug effects would be detrimental. Lower doses of tricyclics may be required for the elderly who develop higher blood levels than younger patients and are more susceptible to the cardiovascular and central nervous system toxicity of these drugs. Benzodiazepines such as chlordiazepoxide (Librium®), and lorazepam (Ativan®) are also quite effective in relieving the anxiety and sleeping difficulty so often associated with depression. Benzodiazepines are most effective when used for brief periods of time and have the advantage of having few interactions with other drugs or with disease processes. Monoamine oxidase inhibitors should not be used to treat depression in medical patients since these drugs have many serious drug interactions. In addition to medication, it is helpful to talk with the patient about the impact of the depression on his social functioning.³³ In those patients where the depression is associated with certain diseases³⁴ (eg, hypothyroidism), or certain medications (eg, reserpine), primary consideration should be devoted to treating the underlying condition.

The evaluation of suicide potential is an important function of our service.³⁵ We evaluate this potential in all the depressed medical patients

referred to us, and we should be consulted in every case where the patient is recovering from a suicidal attempt. We decide whether the patient requires suicide precautions (ie, constant attendant, plastic utensils) and what type of psychiatric followup care is indicated. We are prepared to arrange for referral either to outpatient psychotherapy or to inpatient treatment units (see section on Forensic Issues).

Management of Other Psychiatric Disorders

Consultation in the previous five categories may result in the recognition of a significant psychiatric disorder. In the case of suicide attempts, the probability of a psychiatric disorder is high, and the need for psychiatric consultation, referral, and treatment is clear.

From time to time, a patient with a major psychiatric disorder is admitted for a medical or surgical illness. It is, in fact, unusual for our service to be called upon to consult in the management of such patients, even though we consider this an appropriate circumstance for our involvement. These patients (ie, those with schizophrenia, and major affective or anxiety disorders) may be taking a number of psychotropic medications (ie, phenothiazines, tricyclic anti-depressants, lithium, or monoamine oxidase inhibitors), and we are able to offer consultation on drug interactions and medically relevant side effects. In addition, specific advice on patient management may allow the staff and patient to understand and become more comfortable interacting with one another. Finally, we provide liaison between the hospital and future psychiatric referral facilities, since we are in a position to be aware of the variety of treatment resources available in the community.

Forensic Issues

With increasing awareness of legal problems, medical practitioners have involved psychiatric consultants in two broad issues: competence and commitment. Our service is often requested to make a judgment on the competence of an individual either to refuse or consent to a medical/surgical procedure. Part of our role in this process is to evaluate whether the patient has a psychiatric disorder which may impair his judgment to make a competent decision. Competence involves the ability of a patient to demonstrate an understanding of the nature and risks of the procedure in question, as well as the consequences of accepting or refusing. The standard of competence we expect the patient to demonstrate varies

with the risk/benefit ratio of the procedure.³⁶ For example, a patient with a mild OMD may be considered competent to agree to a brain scan but not to major surgery.

The patient who refuses treatment most frequently prompts a request for a competency determination. In our experience, these situations most often involve a breakdown in communications in the treatment system. As psychiatrists, we are often able to identify and help resolve these social systems issues (see section on Patient Management Problems). In the small percentage of cases which require a legal opinion, we have found it extremely helpful to involve the lawyer-representative of the hospital administration.

Our second area of forensic consultation involves commitments.³⁷ Although specific details may differ from state to state, in general any licensed physician is able to initiate an immediate brief commitment for a patient who is dangerous or gravely disabled due to a mental disorder and who is not willing or competent to agree to voluntary psychiatric hospitalization. Because this action involves a judgment concerning mental disorder, most non-psychiatrists are unwilling to commit a patient without psychiatric consultation. Patients with severe psychiatric disorders or those who have made a serious suicide attempt are appropriate patients for consultation regarding commitment.

We are often asked to commit uncooperative, unreasonable, or noncompliant medical patients. As frustrating as such patients may be, their poor clinical judgment alone does not qualify as a mental disorder and, therefore, does not meet the criteria for commitment. The clinician may impose medical treatment only in the management of immediate life-threatening situations.

Finally, there is the problem of the chronic patient whose multiple admissions for alcohol-related complications are precipitated by ongoing drinking. In such a case, the probate court system (not an individual psychiatrist) may be able to commit the patient to a protective setting. At times, our service has initiated a probate court hearing even though we feel that it may more appropriately be done by the family, primary clinician, or hospital administration.

In order to correct a frequent misconception, it is worth pointing out that a patient who is committed under mental health statutes is *not* necessarily considered incompetent to decide about medical/surgical procedures. Commitment is based on a patient being dangerous to himself or others while competence is based on understand-

ing the nature and risks of a medical treatment or procedure.

Discussion

We have discussed how a variety of clinical problems can best be managed by a tri-partite systems approach. We feel that the systems approach to medical care should not be thought of as belonging exclusively to Psychiatry. Further, the specific skills needed to manage many of the tasks often assigned to or performed by consultation psychiatrists actually belong within the armamentarium of the primary care physician. Specifically, the primary physician regularly encounters and should be trained to recognize, evaluate, and treat organic mental disorder, uncomplicated depression, patient management problems, drug abuse problems, and pain syndromes. He should also be able to recognize major psychiatric disorders, and be aware of the forensic guidelines involving questions of competence and commitment.

Consultation Psychiatry must be actively involved in a conjoint effort with Departments of General Medicine to design curricula and provide clinical training (including supervision by a psychiatrist) necessary to impart these skills to trainees. The primary physician will be trained to manage the majority of psychiatric problems which now remain unrecognized or unreferred. In terms of program development, the problem of unrecognized organic brain syndrome in hospitalized patients can be dealt with as a training issue, rather than a problem requiring psychiatric consultation. Such training can result in an increased recognition of specific disorders, an increased appreciation of the therapeutic value of the systems approach to patient care, and a more effective interdisciplinary collaboration between Psychiatry and the rest of Medicine.

Summary

While 30 to 60 per cent of medical inpatients have psychiatric symptoms, only 2 to 12 per cent of these patients are seen by a psychiatric consultant. The reasons for this low rate of referral include a number of factors: some symptoms are not clinically recognized; it may be difficult for the primary physician to know at what point a consultation request is appropriate; in addition, primary physicians may not be clear about the specific kinds of psychiatric interventions that will facilitate patient care. In order to help create more effective interdisciplinary practice, we describe a general systems approach to patient care,

the major indications for psychiatric consultation, and pertinent evaluation and management considerations in such areas as patient management problems, symptoms without an apparent medical explanation, pain syndromes, organic mental disorder, depression, and medicolegal issues.

References

- ¹ Lipowski ZJ: Review of consultation psychiatry and psychosomatic medicine: 11. Clinical aspects. *Psychosom Med* 29:201-224, May/Jun 67.
- ² Miller WB: Psychiatric consultation: Part 1: A general systems approach. *Psychiatry Med* 4:135-145, Spr 73.
- ³ Eisenberg L: Psychiatry and society: A sociobiologic synthesis. *N Engl J Med* 296:903-910, 21 Apr 77.
- ⁴ Engel GL: The need for a new medical model: A challenge for biomedicine. *Science* 196:129-136, 8 Apr 77.
- ⁵ Fabrega F Jr: Toward a model of illness behavior. *Med Care* 11:470-484, Nov/Dec 73.
- ⁶ Byck R: Psychologic factors in drug administration, in Melmon KL, Morelli HF (eds): *Clinical Pharmacology*. New York, Macmillan, 1978.
- ⁷ Lipowski ZJ: Psychiatric consultation: Concepts and controversies. *Am J Psych* 134:523-528, May 77.
- ⁸ Goldberg RJ: The social system as a factor in medical treatment, in Goldberg RJ: *Strategies in Psychiatry for the Primary Physician*. Darien, Conn, Patient Care Publications, 1980, chapter 3.
- ⁹ Goldberg RJ: Drug treatment of anxiety, in Shader, RI (ed): *Anxiety: A Guide to Biobehavioral Diagnosis and Therapy*. Garden City, Medical Examination Publishing Co, 1982, chapter 4.
- ¹⁰ Kahana RJ, Bibring GL: Personality types in medical management, in Zinberg NE (ed): *Psychiatry and Medical Practice in a General Hospital*. New York, International University Press, 1964, pp 108-123.
- ¹¹ Albert HD, Kornfeld DS: The threat to sign out against medical advice. *Ann Intern Med* 79:888-891, Dec 73.
- ¹² Chodoff P, Lyons H: Hysteria, the hysterical personality and hysterical conversion. *Am J. Psychiat* 114:734-740, Feb 58.
- ¹³ Naples M, Hackett TP: The amytal interview: History and current uses. *Psychosomatics* 19:98-105, Feb 78.
- ¹⁴ Perley MJ, Guze SB: Hysteria: The stability and usefulness of clinical criteria. *N Engl J Med* 266:421-426, 1 Mar 62.
- ¹⁵ Asher R, Lond MD: Munchausen's syndrome. *Lancet* 18:339-341, 10 Feb 51.
- ¹⁶ Spiro HR: Chronic factitious illness: Munchausen's syndrome. *Arch Gen Psychiatry* 18:569-579, May 68.
- ¹⁷ Parsons T: Social structure and dynamic process: The case of modern medical practice, in *The Social System*. Toronto, Canada, Collier-Macmillan Canada Ltd, 1951, chapter 2, pp 428-479.
- ¹⁸ Ziegler FJ, Imboden JB, Meyer E: Contemporary conversion reactions: A clinical study. *Am J Psych* 116:901-910, Apr 60.
- ¹⁹ Sternbach RA: *Pain, A Psychophysiological Approach*. New York, Academic Press, 1968.
- ²⁰ Jaffe JH: Drug addiction and drug abuse, in Goodman LS, Gilman A (eds): *The Pharmacological Basis of Therapeutics*, ed 5. New York, Macmillan, 1975, pp 284-324.
- ²¹ Rayport M: Experience in the management of patients medically addicted to narcotics. *JAMA* 156:684-691, 16 Oct 54.
- ²² Marks RM, Sachar EJ: Undertreatment of medical inpatients with narcotic analgesics. *Ann Internal Med* 78:173-181, Feb 73.
- ²³ Fabrega H Jr, Tynna S: Language and cultural influences in the description of pain. *Br J Med Psychol* 49:349-371, Dec 76.
- ²⁴ According to a communication from HD Kleber, Director, Substance Abuse Treatment Unit, Connecticut Mental Health Center.
- ²⁵ Sellers EM, Alant H: Alcohol intoxication and withdrawal. *N Engl J Med* 294:757-762, 1 Apr 76.
- ²⁶ Jacobs JW, Bernhard MR, Delgado A, et al: Screening for organic mental syndromes in the medically ill. *Ann Internal Med* 86:40-46, Jan 77.
- ²⁷ Engel GL, Romano J: Delirium, a syndrome of cerebral insufficiency. *J Chronic Dis* 9:260-277, Mar 59.
- ²⁸ Wells CE (ed): *Dementia*, ed 2. Contemporary Neurology Series, vol 15. Philadelphia, FA Davis, 1977.
- ²⁹ Shader RI: *Psychiatric Complications of Medical Drugs*. New York, Raven Press, 1972.
- ³⁰ Van Praag HM: Psychotropic drugs in the aged. *Compr Psychiatry* 18:429-442, Sep-Oct 77.
- ³¹ Holland J, Sgroi SM, Marwit SJ, et al: The ICU syndrome: Fact or fancy. *Psychiatry Med* 4:241-249, Sum 73.
- ³² Shildkraut JJ, Klein DF: The management and treatment of depressive disorders, in Shader RI (ed): *Manual of Psychiatric Therapeutics*. Boston, Little, Brown & Co, 1975, Chapter 3, pp 39-62.
- ³³ Weissman MM: Psychotherapy and its relevance to the pharmacotherapy of the affective disorders: From ideology to evidence, in Lipton MA, DiMascio A, Killam KF (eds): *Psychopharmacology: A Generation of Progress*. New York, Raven Press, 1978, pp 1313-1322.
- ³⁴ Sachar EJ: Evaluating depression in the medical patient, in Strain JJ, Grossman S (eds): *Psychological Care of the Medically Ill*. New York, Appleton Century Crofts, 1976, pp 64-75.
- ³⁵ Slaby AE, Lieb J, Tancredi LR: *Handbook of Psychiatric Emergencies*, ed 2, Garden City, NY, Medical Examination Publishing Co, 1981, pp 237-245.
- ³⁶ Roth LH, Meisel A, Lidz CW: Tests of competency to consent to treatment. *Am J Psych* 134:279-284, Mar 77.
- ³⁷ Rubenstein MA, Zonana HV, Crane LE: Civil commitment reform in Connecticut: A perspective for physicians. Appendix: A practice manual for physicians. *Conn Med* 41:709-717, Nov 77.

Departments of Psychiatry and Medicine
Rhode Island Hospital
Providence, RI 02902

If you're disabled, what happens to your earning power?

Think how an unexpected accident or sickness could halt your income at any moment and you'll realize how important Disability Income Insurance can be. Now by applying for this policy, you can assure yourself of steady, continuing income benefits that go to work for you when you're disabled.

This policy is
Endorsed
by:
RHODE ISLAND
MEDICAL SOCIETY

As a member of the Rhode Island Medical Society, you'll get this coverage at a cost less than an individual policy.

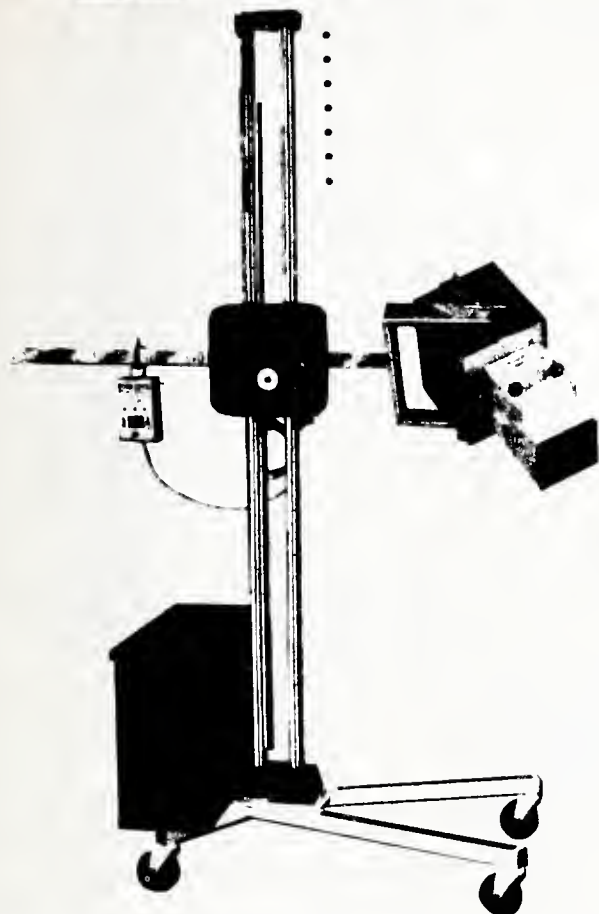
For specific information on costs and coverage, write or phone the administrators.

Administered by
 **LESTER L. BURDICK, INC.**
Loyalty Group Insurance
10 POST OFFICE SQUARE, BOSTON, MA 02109
(617) 426-0020

Local Representative: **JAMES M. FIGARA** (401) 434-7091

Underwritten by: **COMMERCIAL INSURANCE COMPANY**, 100 Wood Avenue South, Iselin, New Jersey 08830 • (201) 321-3800

H X-RAY



Home X-Ray service of R.I.

595 Putnam Pike Greenville, R.I. 02828

**PROVIDING DIAGNOSTIC X-RAY & EKG
SERVICES TO:**

**NURSING HOME, CONVALESCENT &
PRIVATE HOME CARE PATIENTS**

24 Hour Radiological Interpretations
by Board Certified Radiologists

7 Days a Week

CALL 949-1170

"WE CARE"

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

When the alcoholic becomes your concern.

Edgehill Newport is devoted to the alcoholic's effective recovery and confident return to productive living. A private, 160-bed residential treatment facility in Newport, Rhode Island, Edgehill offers a 28-day program for both the male and female alcoholic and a 3½ day treatment program for family members.

JCAH accredited, Edgehill Newport is approved as a treatment facility by most health insurance plans, and is particularly responsive to the physician's needs.

Edgehill Newport 200 Harrison Avenue, Newport, R.I. 02840 401/849-5700



CARDIAC REHABILITATION at THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

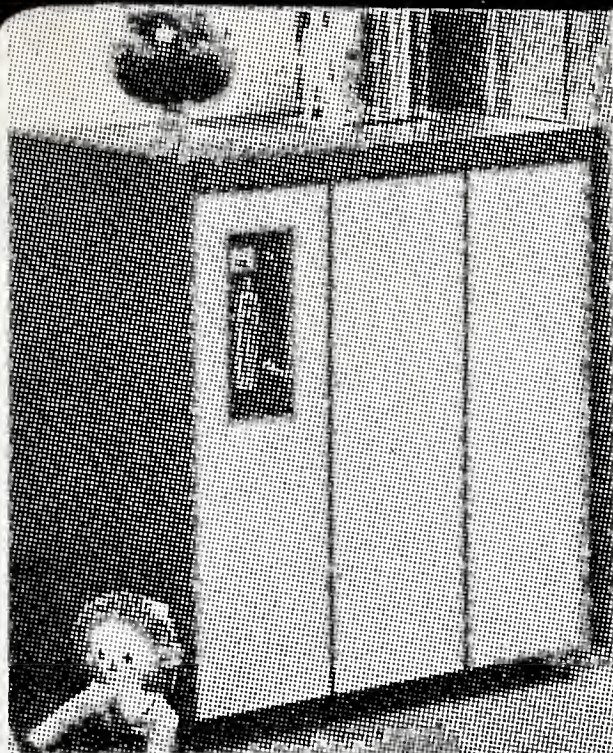
- following myocardial infarction
- following cardiac surgery
- with stable angina pectoris

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166

HEALTH HAVENS NURSING HOME

East Providence

Summer Cruise/Conferences on Legal-Medical Issues



**APPROVED FOR
24 CME CREDITS
CATEGORY I**

By the Suffolk Academy
of Medicine

Both the Caribbean and Mediterranean Conferences were scheduled prior to 12/13/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act, Public Law 94-445 effective 1/1/77.

Caribbean Conference: July 28 — August 7, 1982 aboard TSS FAIRWIND. Visit St. Thomas, Antigua, Martinique, St. Maarten, St. Croix. (Children's counselors on board)

Mediterranean Conference: August 21 — September 4, 1982 aboard MTS DANAE. Visit major cities in Italy, Greece, Egypt, Israel, Turkey, Yugoslavia.

- Seminars directed by Irwin N. Perr, M.D., J.D., Professor, Rutgers Medical School
- Excellent Fly/Cruise group fares.

The number of participants in each conference is limited. Early registration is advised.

For color brochure
and additional
information contact:

International Conferences
189 Lodge Ave.
Huntington Station, N.Y. 11746
Phone (516) 549-0869

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.
Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*"To Some People We're
More Than A Service."*



evening clinic
for alcohol affected families

A state licensed private medical out-patient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

EXPERTS
IN
OFFICE DESIGN
& SPACE
PLANNING



National Business Interiors

A Division of National Office Supply Co

36 Branch Ave., Providence, R.I. 02904 (Branch Ave. Exit Rt. 95)
401-274-9000

Rhode Island Medical Journal

April 1982

Volume 65, Number 4

Nuclear War and Survival

See page 143



Illustration: See page 131

CONTRIBUTIONS

- 151 **Ossifying Fibroma of the Peripheral Skeleton**
155 **Community Acquired Infectious Pneumonia: Etiology and Initial Antibiotic Therapy**
161 **The Relationship Between Work Impairment and Diagnosis**

135 **NEWSLETTER**

141 **PRESIDENT'S CORNER**

143 **EDITORIALS**

147 **EDITOR'S MAILBOX**

149 **PROGRESS IN NEUROLOGY**

LIBRARY
U.C. SAN FRANCISCO
APR 27 1982

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION: INSOMNIA

Others to look for:

agitation
anorexia
feelings of guilt
and worthlessness
fatigue
palpitations
headache
vague aches
and pains
sadness
psychic and
somatic anxiety

Artist's conception,
looking out from the human eye
as conceived in a schematic model.

LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

**Limbitrol given once daily h.s.
may be the best approach**

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlorthalidone and 12.5 mg amitriptyline
(as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlorthalidone and 25 mg amitriptyline
(as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information.

A summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies.

Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

NME can set up the practice you want.

In the area you want.

It's a goal we achieve by offering you a choice of over 60 well equipped acute care hospitals coast to coast; by offering you selected financial assistance, and by offering you management consulting when you begin your practice.

At National Medical Enterprises, we'll help you establish a comfortable and successful Primary Care practice.

Where you want it.

How you want it.

So whether you're interested in a solo, partnership, or a group practice, you should contact NME.

We're the experts.

For further information, contact:
Raymond C. Pruitt, Director Physician Relations
National Medical Enterprises
11620 Wilshire Blvd., Los Angeles, California 90025.
Call Toll-Free 800-421-7470
or collect (213) 479-5526.

**NATIONAL MEDICAL
ENTERPRISES, INC.**



"The Total Health Care Company."
An Equal Opportunity Employer M/F



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Rhode Island Medical Journal

April 1982
Volume 65, Number 4

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

***Guy A. Settipane, MD**
Chairman
***Stanley M. Aronson, MD**
Contributing Editor
Maurice M. Abela, MD
Paul Calabresi, MD
***Herbert Fanger, MD**
Pierre M. Galletti, MD, PhD

Donald S. Gann, MD
***John F. W. Gilman, MD**
***Edwin J. Henrie, MD**
***Patrick R. Levesque, MD**
Robert V. Lewis, MD
Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**
***P. Joseph Pesare, MD**
***Sumner Raphael, MD**
Henry T. Randall, MD
Joseph Amaral, MD
Resident

OFFICERS

Charles E. Millard, MD
President

William F. Varr, Jr., MD
Vice President

Melvin D. Hoffman, MD
President-Elect

David R. Hallmann, MD
Secretary

Erminio Cardi, MD
Treasurer

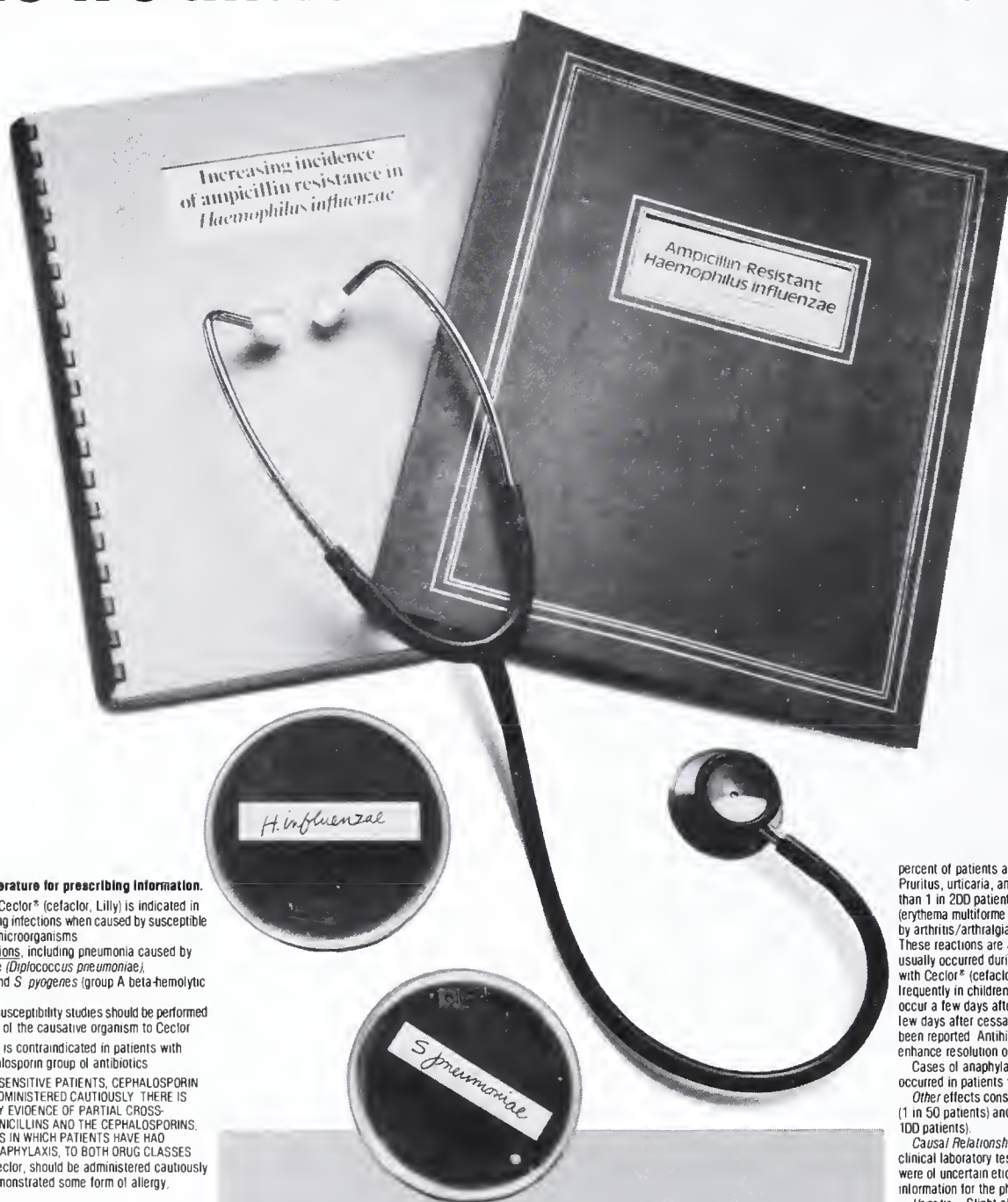
DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society
Edward F. Asprinio, MD
Kent County Medical Society
Peter D. T. Clarisse, MD
Newport County Medical Society
Richard G. Bertini, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association
Douglas A. Rayner, MD
Washington County Medical Society
Roger J. Fontaine, MD
Woonsocket District Medical Society



An added complication... in the treatment of bacterial bronchitis*



Brief Summary.

Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefactor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefactor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefactor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clintest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefactor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.⁷

Ceclor®

cefactor

Pulvules®, 250 and 500 mg

percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefactor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain: Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). (1002819)

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*®.

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975.
2. Antimicrob. Agents Chemother., 11:470, 1977.
3. Antimicrob. Agents Chemother., 13:584, 1978.
4. Antimicrob. Agents Chemother., 12:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11:880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285
Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

200066

TABLE OF CONTENTS

135 **NEWSLETTER**

141 **PRESIDENT'S CORNER**

You Should Be a Member of a Hospital Board

143 **EDITORIALS**

Nuclear War and Survival
"Physician — Heal Thyself"

147 **EDITOR'S MAILBOX**

An Answer to Health Planners

149 **PROGRESS IN NEUROLOGY**

The Neuroanatomical Basis of Angina Pectoris

CONTRIBUTIONS

151 **Ossifying Fibroma of the Peripheral Skeleton**

Case of a Rare Bone Tumor in an 18-Year-Old Girl Is Reported

A. John Elliot, MD

155 **Community Acquired Infectious Pneumonia: Etiology and Initial Antibiotic Therapy**

The Changing Bacteriology of Pneumonia Has Affected the Way Antibiotics Are Used

Fredy Roland, MD

161 **The Relationship Between Work Impairment and Diagnosis**

Schizophrenia and Bipolar Affective Disorder Impair Work Performance More Than Other Diagnostic Entities

Patricia Neely Wold, MD Abby G. Rosenfield, PhD Kirby Dwight

COVER

Scene shows devastation representing the effect of nuclear warfare, from "Grappling with the Last Epidemic: The Medical Response to Nuclear War" by Zachary B. Gerbarg MD and David S. Greer MD, a slide-tape presentation produced by International Physicians for the Prevention of Nuclear War, Inc.

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

EXPERTS
IN
OFFICE DESIGN
& SPACE
PLANNING



National Business Interiors

A Division of National Office Supply Co

36 Branch Ave., Providence, R.I. 02904 (Branch Ave. Exit Rt. 95)
401-274-9000



BASIC SKILLS, INC.

66 Pitman St., Providence, RI 02906
(401) 273-1122

Diane L. McAleer, M.S., M.Ed.
Patricia Ross Maciel, M.A.T.

LEARN BASIC SKILLS

- Educational Assessments
- Individualized Tutoring Programs
- Study Skills Development
- Children and Adults
- Call or write for our brochure

Cathleen Naughton Associates

Private Duty Nursing — Home Care

- Registered Nurses
- Licensed Practical Nurses
- Nurse Aides
- Homemakers

When Home Care Is Needed

PLEASE CALL . . .

(401) 461-5230

Available 7 days a week 24 hours a day.

Are you protected if your accounts receivable records are destroyed?

The Office Protection Plan (TOP) gives you one low-cost policy that covers:

- Destroyed accounts receivable
- Employee dishonesty and embezzlement
- Destroyed patient charts
- Office liability
- Personal injury
- Office equipment
- Practice interruption

Plus many other significant risks faced by physicians. And TOP covers these risks fully ... adequately ... so you need not worry again about loss. For more information on TOP, call Don Marcum at (401) 421-6900.



ESTABLISHED 1879

**Starkweather
& Shepley** INC.

Complete Business & Personal Insurance, Pension & Estate Planning
155 South Main Street, Providence, RI 02903 Telephone (401) 421-6900

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.
Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*“To Some People We’re
More Than A Service.”*



evening clinic
for alcohol affected families

A state licensed private medical out-
patient facility for the alcohol sick person
and his suffering family.

Four week individualized therapy in
strictly observed confidentiality.

Outpatient treatment fully covered by all
health insurers as mandated in 1980 Act
of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

HEALTH HAVENS NURSING HOME

East Providence

Newsletter

April 1982

Charles E. Millard MD, Editor
Karen Challberg, Associate Editor

FROM THE HOUSE OF DELEGATES . . .

Motions approved by the House of Delegates at its recent meeting held March 24, 1982 include the following:

- . That a Task Force of eight individuals (four physicians and four non-physicians) be appointed jointly by the Chairman of the Blue Shield Corporation and the President of the Rhode Island Medical Society to study the interrelationships of the Rhode Island Medical Society and Blue Shield, that the Task Force report its findings on or before the next annual meeting of the Blue Shield Corporation, and that the Task Force have at least one physician and one non-physician who are not currently sitting members of the Board of Directors of Blue Shield.
- . That the Chairman of the Board of Blue Shield be requested to appoint a committee to look into options for regular rotation of Board members.
- . That representatives from the Rhode Island Medical Society to the Blue Shield Professional Advisory Committee should submit written reports to the House of Delegates.
- . That the Rhode Island Medical Society endorses a position objecting to the discontinuance by the Rhode Island Medical Assistance Program of payments for ambulance services for "medically needy only" patients, when those services are required according to the judgment of the physician.

ROSTER OF BUSINESS CONSULTANTS AVAILABLE

The 1982 roster of the Society of Professional Business Consultants (SPBC) is available to doctors who may be interested in retaining a business advisor. The Society of Professional Business Consultants is a national organization of practice management consultants who work exclusively for physicians and dentists. To obtain a free copy of the SPBC roster, a doctor should write on his letterhead to the Society of Professional Business Consultants, Suite 2026, 221 North LaSalle Street, Chicago, Illinois 60601.

INTERNIST SOUGHT FOR PROVIDENCE PRACTICE

A young internist, board certified or board eligible, is wanted to join a busy Providence internist's practice, leading to partnership or ownership. If interested, a curriculum vitae and references should be sent to the Rhode Island Medical Journal, Box 2463, 106 Francis Street, Providence, Rhode Island 02903.

LEGISLATIVE AFFAIRS

"The Uniform Determination of Death Act," jointly developed by the American Medical Association, American Bar Association, and National Conference of Commissioners on Uniform State Laws, was introduced in the Rhode Island General Assembly (82-H7221) by Representatives Anthony J. Carcieri and William D. Durand. In a hearing Paul T. Welch MD testified in support of this bill.

The House Finance Committee held a hearing on House bill 82-H7251, introduced by Representatives Anthony J. Carcieri and Maureen E. Maigret, which would establish a Rhode Island Tumor Registry, with an initial appropriation of \$130,000. The Registry would analyze all data on cancer information of public health significance, identify high-risk groups, disseminate data and serve as a data bank for hospitals. Charles E. Millard MD, President, provided testimony in support of the bill.

Charles E. Millard MD, President and Charles Butterfield Esq, RIMS lobbyist, presented the Society's position in opposition to House bill 82-H7295, introduced by Representative Keven A. McKenna, which would provide that no physician, hospital, or licensed health care facility could increase its fees in excess of 5% per calendar year up to December 31, 1989.

Charles E. Millard MD, President and Melvin D. Hoffman MD, President-Elect testified in opposition to House bill 82-H7396, introduced by Representative Keven A. McKenna, which would let the Rhode Island Professional Standards Review Organization (RIPSRO) review all medical treatments to assure that services were of necessity.

PERIPATETICS ...

Eric Denhoff MD, co-founder of Meeting Street School, has been given the Leydorf Medical Clinic National Service Award for his contributions to the care of persons with developmental disabilities.

Newly appointed Assistant Deans of Medicine in the Brown University Program in Medicine are Stephen R. Smith MD and Stephen R. Kaplan MD.

Jack Franaszek MD is the new Associate Director of Emergency Medicine at Rhode Island Hospital, and Associate Professor of Surgery (Emergency Medicine) in the Brown University Program in Medicine.

Brown University representatives to the Joint Conference for Hospital Administrators and Clinical Section Chairmen include Pierre Galletti MD, David S. Greer MD, and Albert S. Most MD.

DO YOU KNOW AN IMPAIRED PHYSICIAN?

If you know of a physician who needs an advocate and support in obtaining necessary treatment and help for alcoholism or other problems, please contact the Impaired Physicians Committee, Rhode Island Medical Society, 106 Francis Street, Providence, RI 02903 (401) 331-3207. The Committee handles referrals in complete confidence.

RIMS 171st ANNUAL ASSEMBLY ... June 2, 1982
Sheraton-Islander Inn, Newport, Rhode Island

11:00 am
Press Conference with William Y. Rial MD, President, American Medical Association.

12:15 pm
Luncheon with guest speaker, William Y. Rial MD.

2:00 pm
"Oncology Update-1982: Current Therapy," moderated by Frank J. Cummings, MD.

Neoplasams of the ...

Skin
Head and Neck
Lung
Gastrointestinal Tract
Gynecologic Tract
Genitourinary Tract
Bone and Soft Tissues
Breast

Presenter

Charles J. McDonald MD
Leonard J. Triedman MD
Ellen N. Spremulli MD
Louis A. Leone MD
Henry C. McDuff MD
Naeem M. Siddiqi MD
Melvin Tefft MD
Frank J. Cummings MD

Neoplasams of Blood ...

Acute Leukemias
Chronic Leukemias
Malignant Lymphomas
Plasma Cell Disorders
Pediatric Tumors

Michael C. Wiemann MD
Mario G. Baldini MD
Arvin S. Glicksman MD
Zbigniew A. Zawadski MD
Edwin N. Forman MD

New Concepts

Paul Calabresi MD

5:00 pm
41st Charles V. Chapin Oration. "The Practicing Physician and the Public Health" by Howard H. Hiatt MD, Dean of the Harvard School of Public Health and Professor of Medicine, Harvard Medical School.

6:30 pm
Cocktail Hour

7:30 pm
Dinner-Dance with greetings from William Y. Rial MD, President, AMA; Chapin medal presentation to Howard H. Hiatt MD; presentation of the "Dr. Charles L. Hill Award for Distinguished Service to the Rhode Island Medical Society"; presentation of donation to Brown University Program in Medicine by women's auxillary representative of the AMA-ERF; presentation of certificates to recipients of RIMS Science Fair Awards.

SAVE THE DATE ... June 2, 1982



- Funded CME's
- Flexible hours and locations
(as not to interfere with your practice)
- Non - contributory retirement annuity
- Affiliation with the largest comprehensive health care system in the world
- A chance to broaden your medical expertise

or return coupon to:

AMEDD Personnel Procurement

FOB, Suite 532

450 Main Street

Hartford, CT 06103

Name: _____

Specialty: _____

Address: _____

Business Phone: _____

Home Phone: _____

Best Time to Call: _____

138

There's more to ZYLOPRIM[®] than (allopurinol).



- From Burroughs Wellcome Co. – the discoverer and developer of allopurinol
- Patient starter/conversion kits available for easy titration of initial dosage
- Patient compliance pamphlets available
- Continuing medical education materials available for physicians



Prescribe for your patients as you would for yourself.

*Write "D.A.W.," "No Sub," or "Medically Necessary,"
as your state requires, to make sure
your patient receives the original allopurinol.*



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Motrin[®]

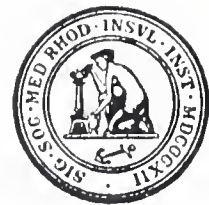
ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn



You Should Be a Member of a Hospital Board

Corporate Restructuring of Hospitals

Hospitals are in a state of transition or evolution. This transition will have a profound effect on the future practice of medicine and consequently on physicians and their patients.

Corporate restructuring, including the creation of "super boards of directors," is a way that hospitals are seeking to solve financial problems.* The problems stem from inadequate reimbursement for services, markedly increased costs resulting from inflation and technological advances, demands for a greater number of highly qualified technicians who are becoming unionized, and a growing consumerism calling for more services along with accountability by hospitals for intramural decisions and their impact on the community.¹

The corporate or super boards are acting as holding companies for their hospitals and are entering into profit-making activities. They are changing the hospitals' governing structures to create multiple boards to shelter retained capital for renovation and equipment purchase. As government research grants dry up, community hospitals are starting to compete with physicians by opening satellite clinics. Today we have the possibility of more and more teaching hospitals and medical schools faculties getting involved in the practice of medicine and collecting fees — to stay alive. The accumulation of such decisions can transform an institution. As more moves are made based on the profit motive, the money ethic becomes entrenched, and increasingly prevails.

Administrative priorities, however, should not be allowed to obfuscate the charitable, voluntary spirit of patient care institutions in favor of the corporate spirit. Derek C. Bok, President of Harvard University, has raised the question of whether universities can become partners with business "without subverting their commitment to learning and discovery."² *By analogy, can hospitals develop along corporate principles without subverting their commitment to patient care?*



Charles E. Millard, MD

It is time that physicians become closely involved with the decisions being made and the principles guiding the operations of the hospitals in which they practice. Doctor Arthur J. Miller in a recent commentary to the *Journal of the American Medical Association* describes the "explosive industrial-type growth pattern" in the nation's hospitals as a "disease."³ Doctor Miller says that the business rule that "growth equals progress and, hence, success," applied to hospitals, "is a concept that leads to great costs in money and efficiency and runs contrary to our social needs." Physicians, in Doctor Miller's view, because of their unique position to discriminate the superfluous from the essential in patient care, are the only ones who can bring restraint and balance to bear on hospital fiscal policies.

Physicians' Role Must Change

The changes taking place in hospitals demand a concurrent change in the role of the staff physicians. If physicians fail to recognize and do not satisfactorily fill decision vacuums, others will — to the disadvantage of our PATIENTS.

Recent technological advances in diagnostic and therapeutic equipment (costing hundreds of thousands of dollars) has catapulted hospitals to the focal point for referrals for diagnosis, ther-

* Hospitals' financial difficulties are illustrated by the fact that 80 per cent of hospitals in New York State are operating with deficits. From: Stacey J. Physicians feeling the pinch of diminished hospital authority. *American Medical News* 3, 16, 1/8 Jan 82.

apy, and post-therapy follow-up. Non-technological support services unavailable in private offices also are being provided by hospitals.

It takes little imagination and foresight to realize that this trend will continue as more and more advanced technology is developed. No physician can afford the new devices. Therefore, the hospital must be accepted as playing an ever growing role in the delivery of medical care, and physicians must play a correspondingly expanded role in hospitals.

Medical staff leaders must be sophisticated, knowledgeable, and willing to participate in all aspects of the functioning of hospital departments. Newly educated voices among the ranks of hospital administrators want their medical staffs to be happy and successful, because a successful and loyal medical staff will make an institution survive and thrive in these trying economic times. They want their medical staff leaders to become involved in all aspects of the institutions' decision-making processes, but, and this is a big "but," so far medical staff leadership has not been sufficiently knowledgeable to make a valued and constructive contribution at the top level.

If the physician does not assume a decision-making role, then his demise is certain and his influence in the hospital will amount to nothing. A recent case in Maryland in which, under pressure from the state attorney general, control of awarding staff privileges was taken from the medical staff and assumed by the hospital board of directors is evidence of the weakening of medical staff prerogatives.⁴ The hospital is where the action is. Since many of the physician's principal needs will be addressed no longer by county

medical societies, but rather by medical staff organizations, the latter must be capable and influential.

The patient's best advocate, both in and out of the hospital, is the physician. Hospital problems will not be solved by business principles alone. By keeping the perspective of patients' welfare foremost, however, we may at least be able to extricate ourselves from some of our fiscal dilemmas and make the decisions which will protect our hospitals as institutions dedicated to the care of the ill. For this purpose, physicians' views are essential on hospital boards of trustees, and hospital medical staff organizations must speak out. We owe it to our PATIENTS to be heard.

Doctor James H. Sammons, AMA Executive Vice President, and Joseph D. Miller, AMA Senior Deputy EVP, have stated that "if they could wave a wand, the single most important thing to American medicine is that it be included in all discussions and plans being drawn for the health care of the American people." "*Our view,*" Dr. Sammons says, *'will be based not on self-interest, but on expertise. The American public should expect no less from its medical experts, and if we are disenfranchised from decisions now being drawn, it is the people who will suffer most.'*"⁵

References

- ¹ Way GTC: Where to the medical staff. NY State J Med, to be published.
- ² Carlson B: Business and universities: uneasy bedfellows. New England Business: 31-37, 15 Jun 81.
- ³ Miller AJ: The 'growth disease' in American institutional medicine. JAMA 247(4):469-470, 22/29 Jan 82.
- ⁴ Hospital board to rule on privileges. American Medical News: 1-2, 5 Mar 82.
- ⁵ Breo DL: AMA leaders seek a bigger role for medicine. American Medical News: 1, 33-36, 12 Feb 82.

Nuclear War and Survival

Despite all that has been written about the consequences of a nuclear holocaust, the reality is so horrendous that the human mind seems incapable of comprehending it. Keeny and Panofsky writing in *Foreign Affairs*¹ have stated that "it's not clear how deeply the horror of such an event has penetrated the public consciousness or even the thinking of knowledgeable policy makers who in theory have access to the relevant information. The lack of public response to authoritative estimates that general nuclear war could result in 100 million fatalities in the United States suggests a general denial psychosis when the public is confronted with the prospect of such an unimaginable catastrophe."

A single modern strategic nuclear weapon could have the yield of one million times that of a World War II high explosive strategic bomb or up to a thousand times the yield of the atomic bombs that destroyed Hiroshima and Nagasaki killing 250,000 souls.

A single one-megaton bomb detonated over the White House would destroy multiconcrete structures to a distance of three miles, with winds of up to 300 miles per hour and pressures of two pounds per square inch. Assuming the prevailing westerly winds, there would be levels of fallout greater than 1,000 rem (450 rem produce 50 per cent fatalities) over an area of 500 square miles and 100 rem (a level having significant detrimental health effects) over some 4,000 square miles all the way to the Atlantic Ocean. The explosion of multiple bombs could readily have additive and overlapping fallout patterns covering large portions of the country with radiation.

There is no doubt that an appropriate civil defense could save lives. Civil defense preparedness in Russia is considerably ahead of ours. Yet it is estimated that with general evacuation of all citizens and full use of shelters, they could suffer 25 million fatalities as a minimum, and up to 85 million could be killed if the evacuated population were targeted.

Abrams and Von Kaenel in a recent report on

"Medical Problems of Survivors of Nuclear War"² discuss infection, communicable disease, and other incalculable problems among those surviving the initial blast. According to their estimates, minutes after a 6559-Megaton attack (established as a model for reference) 86 million people, 40 per cent of the population, will be dead. An additional 34 million, 27 per cent of the population, will be severely injured.

The targets of attack, in order of priority would be: military installations; military supporting industries, transport, and logistic facilities; other basic industries and facilities that contribute to the maintenance of the economy; and population concentrations of 50,000 or more. Some 4,000 megatons would be targeted on urban areas and population centers.

A scenario for an atomic barrage has four phases:

In the *Barrage Period* the explosions will almost instantaneously result in millions of lethal and non-lethal blast, thermal, and immediate radiation injuries.

During the *Shelter Period* for days to weeks after the initial holocaust, survivors will attempt to sustain themselves in fallout shelters surrounded by intense radiation, fires, and deprivation.

When in the *Post-Shelter Survival Period* fallout has reached a tolerable level, survivors will emerge for variable intervals to seek food and shelter, nurse the injured, bury the dead, clear debris, reap any harvest, and sow the next crops. Survival is the only attainable goal in an environment both primitive and hazardous.

With survival accomplished, the *Recovery Period* begins. Societal structure will emerge, food supplies and shelter will be secured, and communities will to some extent be reestablished.

There will be 86 million dead immediately following the attack — 40 per cent of the population. An additional 34 million, or 27 per cent of the survivors, will be severely injured. Fifty million more dead can be anticipated in the shelter period, or a total of 133 million fatalities. Many of

the survivors will have received heavy radiation. Sixty million may emerge from the shelter period relatively unharmed or with slight radiation exposure. The vast numbers of injured who escape the worst fate can expect little medical care. The destruction of hospitals and medical facilities and the loss of medical personnel and supplies will be drastic. Roads to and from affected areas will be gnarled by traffic in both directions, and transportation of all kinds will be at a premium or non-existent.

Space permits only a brief summary of the medical and environmental deprivations to which the victims will be subjected. Increased risk of serious infection and communicable disease will result from immunodeficiency due to radiation, and to malnutrition, exposure, unsanitary conditions, growth of insect populations, depleted antibiotic and medical stocks, shortages of physicians, destruction of laboratories, and general disorganization. Millions of corpses and dead animals, many remaining untouched for weeks, will produce an incredible nuisance.

Under shelter conditions respiratory and enteric infections could be rampant. Water supply, refrigeration, sewage treatment, and waste disposal will be disrupted. Crowding and stress will be pervasive. The elderly, infirm, and very young will be especially vulnerable.

This brief if incomplete synopsis of the probable total disruption which a major nuclear bombardment will wreak upon the innocent has no ideological objective. We are not advocating mindless ban-the-bomb or unilateral disarmament. But we urge that those who have the responsibility of formulating national policy and determining our destinies face realistically these incredible horrible, dismal, chilling prospects.

Seebert J. Goldowsky, MD

References

- ¹ Keeny SM Jr, Panofski WKH: MAD vs NUTS: The mutual relationship of the super powers. *Foreign Affairs* 60:287-304, Winter 1981/82.
- ² Abrams HL, Von Kaenel WE: Special Report. Medical problems of survivors of nuclear war. Infection and the spread of communicable disease. *N Engl J Med* 305:1226-1232, 12 Nov 81.

“Physician — Heal Thyself”

This ancient saying has long been quoted and given substantial credence. In many areas physicians indeed receive excellent treatment for their ills. There are certain situations, however, in which physicians may be short-changed.

When a physician contracts a physical illness, such as a myocardial infarct or an infectious disease, his colleagues are likely to summon the most skilled and talented members of the profession to help him. If, on the other hand, a physician becomes impaired by reason of alcoholism, drug addiction, or depression, his colleagues are likely to be less than enthusiastic in offering help.

The problem is not always properly recognized. Often, the early signs of impairment due to alcoholism, addiction, or psychiatric disorders, are masked. Colleagues will enable the suffering physician to continue his role with varying degrees of support. Even in those situations in which the appropriate problem is recognized, the proper course of action is not known. It is very

difficult to realize that alcoholism, drug addiction, and many emotional illnesses are easily treatable and have a good rate of cure.

The proceedings of the Fourth National Conference on the Impaired Physician has just been published by the Department of Mental Health of the American Medical Association. In this volume, the Mayo Clinic experience with the treatment of alcoholic and drug addicted physicians is reported. They report an 83 per cent five-year favorable outcome among physicians compared with a 62 per cent favorable outcome in the nonphysician population. In contrast to what was expected, drug addicted physicians had an even better prospect than alcoholic physicians with a 95 per cent favorable result.

Further, 71 per cent of the physicians entering treatment returned to the active practice of medicine. The reason for entering treatment, whether personal or forced as by a state society or Medical Review Board, did not seem to affect the out-

come. Physicians forced into treatment did just as well as those who entered for personal reasons on their own volition.

What does this tell us? — that the impaired physician suffering from alcoholism, drug addiction, depression, or other psychiatric disorders, has an excellent prognosis if *properly* treated. How extensive is the problem? The AMA estimates that 7 to 10 per cent of physicians fall into these categories of impairment. What should be done? It has become apparent that the most efficient way to help an impaired physician is through an organized effort by the state medical society through the creation of an Impaired Physicians Committee. Such a committee is active and functioning in Rhode Island. It requires only that a physician who is suspected of impairment be reported to the committee. The committee serves as the physician's advocate and encourages him to get into treatment and to resume a productive and happy life.

The physician who is impaired by any of these disorders is in pain and suffering. We certainly owe it to the physician-patient to help as we would any other friend or patient. Of interest is the fact that during our limited experience in Rhode Island for the last three years, the majority of physicians with whom the Impaired Physicians Com-

mittee has made contact have been relieved and happy. There are several reasons for this.

First, part of the disease of alcoholism is denial, and often it is a relief to a victim to have someone confront him or her with the truth, so that the problem can be brought out into the open. Second, these diseases tend to drive the patient into isolation. The sufferer feels that no one cares. The concern of the Impaired Physicians Committee and the physicians' colleagues provides reassurance that indeed friends and peers do care and wish him or her well. Third, the concrete proposals for treatment and their good track record reassure the physician that there is something that can be done about the problem. The major hindrance at this time to aiding impaired physicians is the lack of initial contact due to the reluctance of their colleagues to help out by reporting their difficulties. A high degree of confidentiality, of course, is preserved at all times. We hope that increased knowledge about workings of the Impaired Physicians Committee of the Rhode Island Medical Society will encourage earlier help for those physicians who are suffering, and truly suffering, from these illnesses.

Herbert Rakatansky, MD, Chairman
Impaired Physicians Committee

*A Continuing Medical Education Program of Increasing
Importance to Every Physician in Rhode Island—*

THE EAST'S MAJOR POSTGRADUATE CONFERENCE ON THE

MEDICAL ASPECTS OF SPORTS

**THURSDAY (all day), JULY 15 and FRIDAY (morning),
JULY 16, 1982**

at the Keaney Gymnasium, University of Rhode Island, Kingston.

This annual meeting on Sports Medicine, now in its 17th year, was initiated by the Rhode Island Medical Society. Now co-sponsored by the International College of Surgeons and the University of Rhode Island, the meeting attracts physicians from all parts of the Eastern area.

The program qualifies for 13 credit hours of Category 1 of the Physician's Recognition Award of the American Medical Association, and for 15 credit hours by the American Academy of Family Practice.

**CHECK THE DATES NOW on your summer appointment calendar
for an important visit to cool South County!**

An Answer to Health Planners

To the Editor:

Bruce C. Kelley, PhD, Chief, Office of Health Systems Planning, Rhode Island Department of Health, in commenting on my President's Corner in the January 1982 issue of this *Journal*, stated, "As a physician he (Dr. Millard) is obliged to do everything within reason for each of his patients. If I were his patient and were seriously ill, I would want him to do everything within reason for me. However, we obviously do not have the resources to do all things for all people. Howard Hiatt, Dean of the Harvard School of Public Health, has very aptly pointed out that, if unrestrained, such an approach to resource allocation would destroy the health system for one and all." (*RI Med J* 65(3):101, Mar 82)

Mr. Kelley is confusing the issues. I am well aware that we do not have the resources to do all things for all people, and clearly I have not advocated and do not advocate this. However, what I do advocate is a practice of medicine predicated on the philosophy of therapeutic rationalism. To understand this we must discuss three concepts: 1) Therapeutic Rationalism, 2) Vitalism, and 3) Cause of Death:

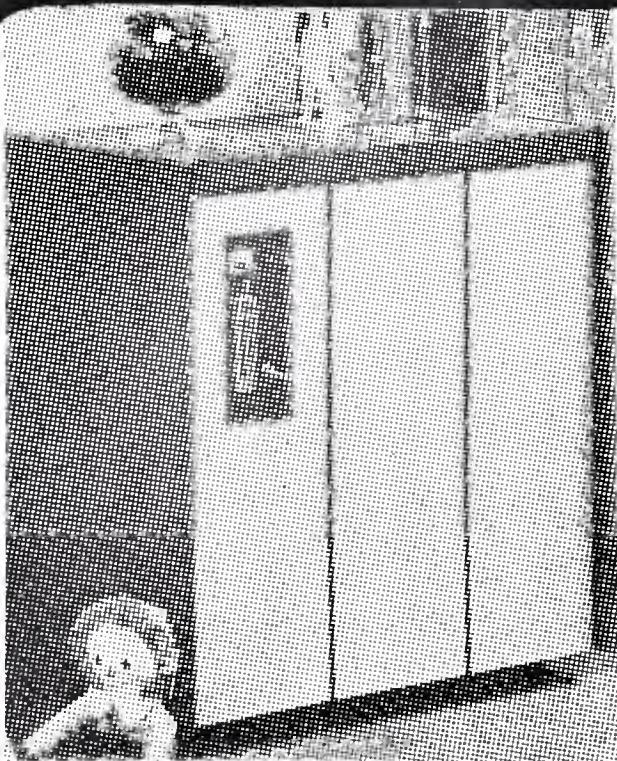
1) *Therapeutic Rationalism*. The fundamental principle of therapeutic rationalism is that only appropriate and effective therapy as indicated by the nature of the disease should be employed. Providing appropriate and medically effective measures which are a rational treatment regimen, relieving pain and suffering, and avoiding unnecessary or ineffective measures are part of the everyday practice of medicine. Applied to the care of the critically ill or injured patient, therapeutic rationalism permits withholding inappropriate or ineffective drugs and procedures or withdrawing medical support that is not beneficial.

2) *Vitalism*. Vitalism holds that one should persist with all forms of treatment even if a hopeless prognosis exists. To continue extraordinary and unusual therapy at all costs means that life is viewed as the absolute good and death as the absolute evil. This is contradictory to the rational practice of medicine.

3) *Cause of Death*. The withdrawal of any therapy which is ineffective in reversing a hopeless illness is not considered ethically to be either a proximate or a remote cause. Rather the cause of death is founded in the patient's original disease. When therapy is hopeless and only relief from suffering by appropriate therapeutic measures is indicated (or available), then the disease may be permitted to continue its natural, inevitable, irreversible course.

I hope that these concepts will illuminate the first issue raised by Mr. Kelley. As for the second issue, we at present are not actively advocating construction of new hospital beds. We are asking that enough nursing home beds be made available to eliminate the useless and wasteful 14,000 administrative days that are spent by patients waiting for nursing home beds in hospitals each year. In addition we must prevent the high and dangerous occupancy rates in our hospitals if we are to attain maximum safety for our population. The government advocates an occupancy rate of 85 per cent. In my President's Corner in the January 1982 issue I further pointed out that five of the short-term hospitals in the state had an occupancy rate of over 90 per cent.

Charles E. Millard, MD
President
Rhode Island Medical Society



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166



CARDIAC REHABILITATION

at

THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

- following myocardial infarction
- following cardiac surgery
- with stable angina pectoris

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904

The Neuroanatomical Basis of Angina Pectoris

P. Panton; L. R. Jenkyn, MD

The heart was once thought to be devoid of pain sensations.¹ William Harvey demonstrated that the exposed heart of a male who had survived chest trauma was unresponsive to touch, pin prick, or pinch; others subsequently showed that heat, cold, and vibration also fail to evoke a response. Electrical stimulation of the heart is perceived only when it produces extrasystoles. Not until the twentieth century was it appreciated that angina was due to myocardial ischemia releasing a mediator which stimulates nearby nociceptive pain fibers. This pain mediator may be bradykinin, histamine, or serotonin.²

Pain fibers from the heart ascend in mixed visceral nerves, intercalating with sympathetic or parasympathetic (vagal) efferents. Results of sympathectomy suggest that the majority of pain fibers associate with sympathetic nerves and that pain fibers that travel with the vagus are of lesser clinical significance.¹

Pain fibers arise in the plexuses of coronary artery adventitia and peri-arterial subepicardium. They accompany sympathetic nerves along either of two pathways (Fig 1): 1) from the peri-arterial nerve endings to the superficial and deep cardiac plexus, ascending in thoracic cardiac nerves to the upper three of four thoracic sympathetic chain ganglia; and 2) from the cardiac plexuses following the middle and inferior cardiac nerves to the corresponding cervical sympathetic ganglia only to descend along the sympathetic chain to the upper thoracic ganglia. The superior cardiac nerve carries no pain fibers. Afferents from both pathways pass through the thoracic sympathetic ganglia and the dorsal roots to synapse in the spinal cord. Central transmission of pain is along the contralateral lateral spinothalamic tract.

The somatic distribution of the referred pain of myocardial ischemia adheres closely to the dermatomes of spinal cord segments supplied by middle, inferior, and direct thoracic cardiac nerves. Visceral and somatic pain fibers may con-

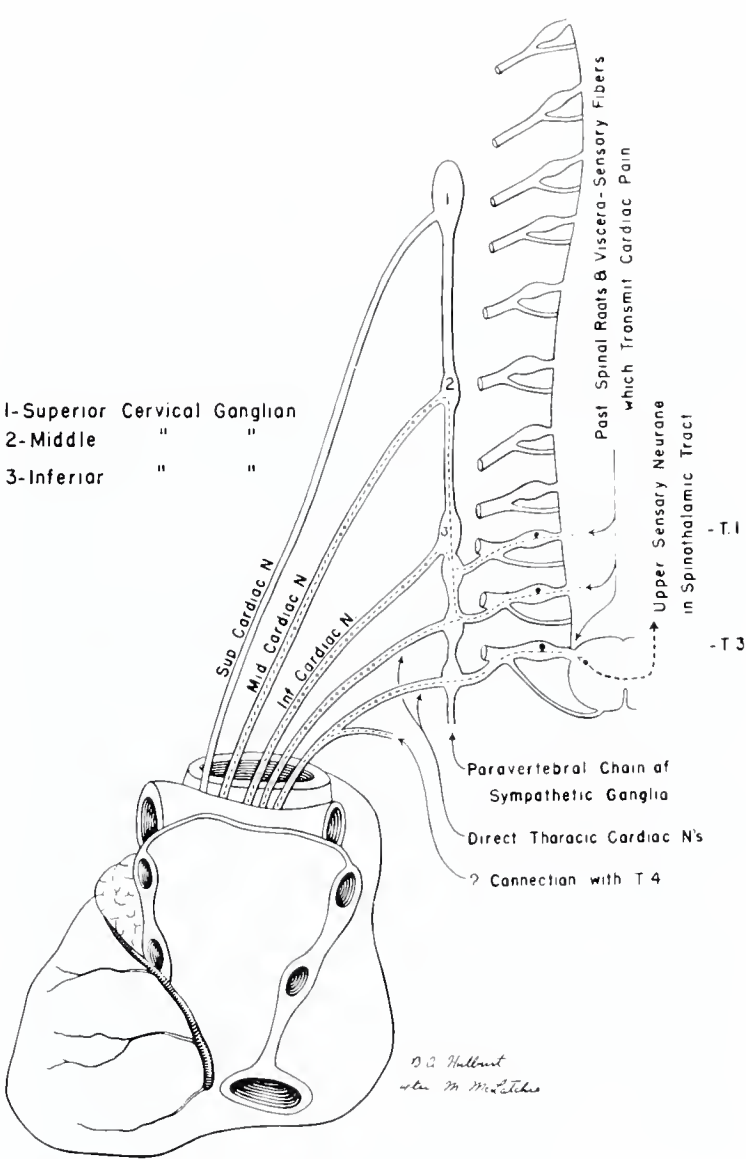


Figure 1. The Cardiosensory Pathways
From: White JC, Sweet WH: Pain: Its Mechanisms and Neurosurgical Control. Springfield, Ill, Charles C Thomas, 1955.

verge on a common pool of secondary afferent neurons. With intense stimulation of visceral fibers, the somatic secondary afferents may be recruited, thus communicating the false information of chest or limb pain. Clinical observations are consistent with this hypothesis. Bilateral upper thoracic sympathectomy or dorsal rhizotomy

(root excision) uniformly abolishes radiation of pain to the arm and pericardium. Patients undergoing cardiac transplantation possess completely denervated hearts and are not subject to chest pain even in the presence of electrographic evidence of ischemia or infarction (personal communication: W H Barry, MD, Peter Bent Brigham Hospital).

Jaw and pre-auricular pain is not altered by sympathectomy or dorsal rhizotomy. These referred pains persist even after excision of the superior cervical ganglion and superficial cervical plexus. Alcohol injection of the mandibular

branch of the trigeminal nerve blocks this pain. Thus, jaw and pre-auricular pain which arrive at the central nervous system via trigeminal afferents has no clear-cut relationship to known cardiac afferent pain systems and remains an enigma.

References

- ¹ White JC, Bland EF: The surgical relief of severe angina pectoris. *Medicine* 27:1-42, 1948.
- ² DelBianco PL, DeBene E, Sicuteri F: Heart pain. *Adv Neurol* 4:375-381, 1974.
- ³ Freidburg DK. *Diseases of the Heart*. Philadelphia, WB Saunders, 1966.

Ossifying Fibroma of the Peripheral Skeleton

Case of a Rare Bone Tumor in an 18-Year-Old Girl Is Reported

A. John Elliot, MD

Ossifying fibroma of the peripheral skeleton is a distinctive lesion both radiographically and microscopically. Its relationship to other bone tumors and diseases is not fully understood. The prognosis and treatment of this tumor is also not fully established. This report illustrates distinctive characteristics of this lesion, its possible relationship to other pathological conditions, treatment, and prognosis.

Case Report

An 18-year-old white female was first seen complaining of a painful enlarging mass below her right knee. The mass had been present for approximately six months. Examination revealed a bony, hard mass of 5 x 1.5 centimeters, and radiographs revealed a bubbly area of bone destruction in the anterior proximal portion of the tibia. There was expansion and thinning of the anterior cortex with sclerosis about the base of the lesion (Fig. 1). The patient's past health was not significant, but a ten centimeter eosinophilic granuloma was demonstrated in her sister at age sixteen. The red blood count, white blood count, hemoglobin, hematocrit, urinalysis, serum calcium phosphorus, acid and alkaline phosphatase, protein electrophoresis, sedimentation rate, and cold agglutinins were all within normal limits. A metastatic series was negative, and local tomograms did not add additional information. A local excisional biopsy of the lesion yielded about three grams of gritty, fibrous material. The margins of the lesion were well demarcated, and the anterior cortex was thin, but without evidence of spread of tumor through the cortex (Fig. 2). Microscopic



Figure 1. Radiographs of the right knee show a well circumscribed, multilocular intracortical lesion of the tibia with marginal sclerosis. The lesion is centered in the cortex of the proximal tibia.

A. John Elliot, MD, Westerly Hospital, Westerly, Rhode Island; Section of Orthopedics, Yale University School of Medicine, New Haven, Connecticut.



Figure 2. Radiographs of the right knee revealing the extent of local excision and curettage of the lesion.



Figure 3. A loose fibrous stroma and randomly oriented osseous trabeculae rimmed by plump osteoblasts. The trabeculae range in maturity. (hematoxylin and eosin, x400).

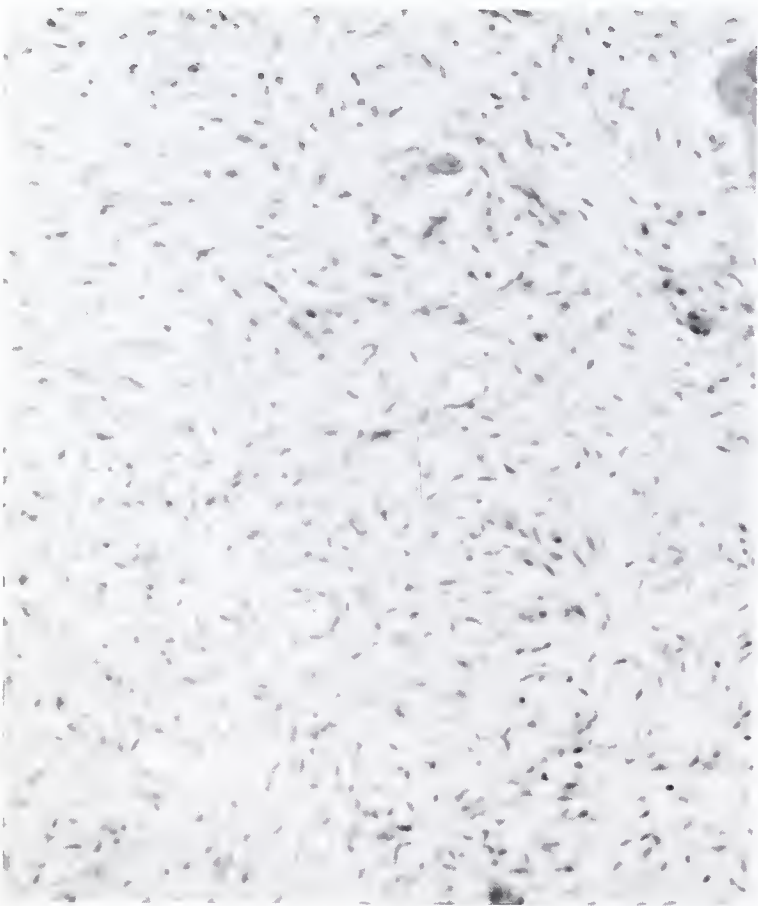


Figure 4. Loose fibrous stroma with osteoclast, upper margin (hematoxylin and eosin, x400).

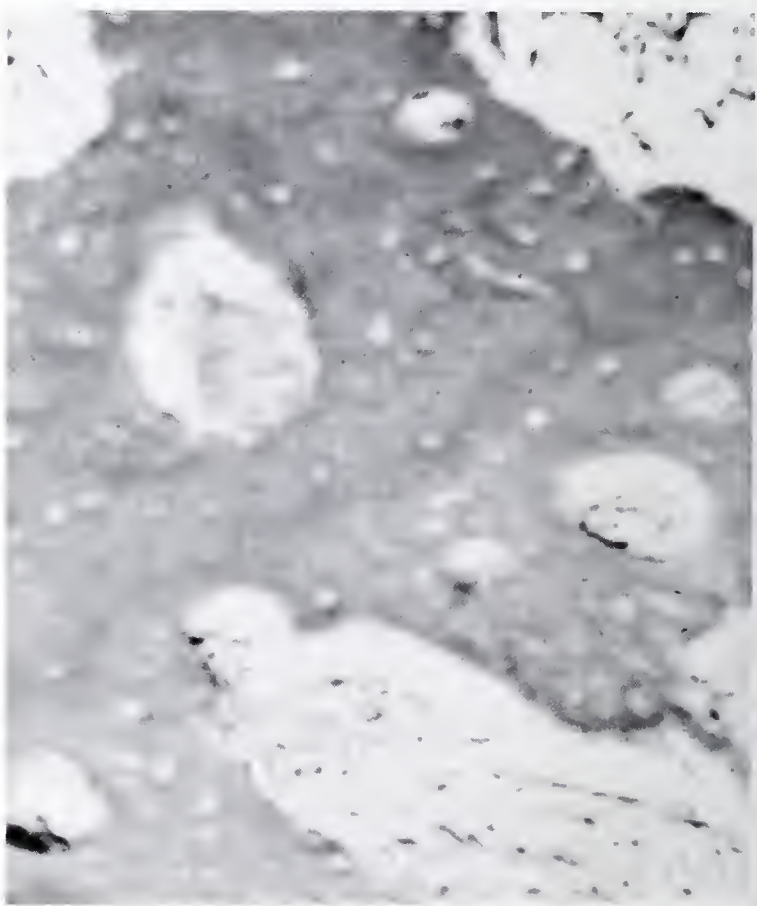


Figure 5. Trabeculae with active osteoblastic behavior along their margins. Also noted is loose fibrous stroma.



Figure 6. Status of the resected area at two year follow-up.



Figure 7. Status of the resected area at three year follow-up.

examination of the biopsy revealed masses of lamellar and woven bone lined by plump osteoblasts (Figs. 3, 4, 5). Her postoperative course was benign, and there has been no recurrence in three years. She has returned to full activity, including active participation in sports. Radiographs reveal a sclerotic base with remineralization of the excisional defect (Figs. 6, 7).

Discussion

Ossifying fibroma of the facial skeleton is a well-established entity, but not so in the peripheral skeleton. After presentation of this case to many colleagues and a medical school grand rounds, the rarity of the lesion became apparent. The differential diagnosis included fibrous dysplasia, adamantinoma, Paget's disease, enchondroma, non-ossifying fibroma, and eosinophilic granuloma. The literature is confusing regarding etiology and its relationship to other pathological bone entities such as fibrous dysplasia and adamantinoma. Kempson¹ distinguished ossifying fibroma by its microscopic appearance of osseous trabeculae rimmed by osteoblasts, composed of lamellar as well as woven bone. Ossifying fibroma almost always begins in the cortex. It is for this reason that Johnson² termed the lesion intracortical fibrous dysplasia, reasoning that three entities, pseudoarthrosis, adamantinoma, and intracortical fibrous dysplasia, were manifestations of a "libro vascular anomaly producing different clinical, pathological patterns, depending on whether the anomaly involved muscular arteries of the periosteum (pseudoarthrosis in infants), intramedullary and nutrient vessels (adamantinoma in adults), or the capillary system of Haversian canals in children and adolescents (intracortical fibrous dysplasia)." Sheldon-Markel³ described two patients with intracortical fibrous dysplasia who required radical resection of the tumor mass. In one five-year-old boy there was recurrence after curettage and after mid-shaft resection and bone grafting. The histology of the second case from the tibia of a sixteen-year-old boy was highly suggestive of adamantinoma, and this author also alluded to the association of these two lesions. Goergan-Dechan et al⁴ described two patients, one in a three and one-half year old boy previously diagnosed as nonossifying fibroma from a previous curettage with recurrence including the entire diaphysis of the tibia resected by total diaphysectomy (which also recurred) and an eleven-year-old girl with a lesion in the proximal tibia, successfully resected by excisional biopsy and grafting. Canpanacci⁵ presented five

cases and reviewed seventeen others which he termed "osteofibrous dysplasia of the long bones." These seventeen cases were variously diagnosed as congenital fibrous dysplasia, congenital defect of the tibia, and non-ossifying fibroma. A distinguishing feature was the large cystic expansion of the tibia seen at birth or shortly thereafter and the associated curvature of the tibia. One-fifth of his cases involved the fibula. In one case the heads of two metacarpals and the terminal phalanx of the thumb were involved in addition to the tibia on the same side. He thought these lesions had little or moderate tendency to progress.

Summary

Ossifying fibroma is a clearly defined entity, both radiographically and histologically, but not well defined in relationship to adamantinoma and fibrous dysplasia. Its course, prognosis, and treatment are also somewhat uncertain. It appears that it is locally aggressive and should be followed for long periods of time. The chance of recur-

rence is not predictable from the microscopic sections. If after local excision there is any suggestion of recurrence, an en bloc excision with bone grafting seems to be the treatment of choice.

References

- ¹ Campanacci M: Osteofibrous dysplasia of long bones: A new clinical entity. *Ital J of Orthop Traumatol* 2:221-237, Aug 76.
- ² Goergen TG, Dickman PS, Resnick D, et al: Long bone ossifying fibromas. *Cancer* 39:2067-2072, May 77.
- ³ Markel SF: Ossifying fibroma of long bone: Its distinction from fibrous dysplasia and its association with adamantinoma of long bone. *Am J Clin Pathol* 69:91-97, Jan 78.
- ⁴ Kempson RL: Ossifying fibroma of long bones. A light and electron microscopic study. *Arch Pathol* 82:218-233, Sep 66.
- ⁵ Dahlin DC: *Bone Tumors*. Springfield, Ill, CC Thomas, 1967.
- ⁶ Golding JSR, Sissons HA: Osteogenic fibroma of bone: A report of two cases. *J Bone Joint Surg* 36B:428-435, Aug 54.
- ⁷ Johnson LC: Congenital pseudoarthrosis, adamantinoma of long bone and intracortical fibrous dysplasia of the tibia. *J Bone and Joint Surg* 54A:1355, Sep 72.
- ⁸ Heiple KG, Perrin E, Aikawa M: Congenital generalized fibromatosis. *J Bone and Joint Surg (Am)* 54A:663-669, Apr 72.

83 Beach Street
Westerly, RI 02891

Community Acquired Infectious Pneumonia: Etiology and Initial Antibiotic Therapy

The Changing Bacteriology of Pneumonia Has Affected the Way Antibiotics Are Used

Fredy Roland, MD

Antibiotics have changed the outcome of infectious pneumonia. Because of the types of patients that now acquire pneumonia and the kind of bacteria causing pneumonia, the efficacy of the older antibiotics is questioned.

The diagnosis of lower respiratory bacterial infections is one of the commonest problems in infectious disease.¹ The difficulty is in starting antibiotic(s) before microbiological reports are available.

The question arises as to which antibiotic to use, ranging from the one with a narrow spectrum of antibacterial activity to the "magic bullet" of the broad spectrum antibiotic. The choice of the initial antibiotic in infectious pneumonia becomes a real challenge with the availability of the new penicillin derivatives, the second and third generation cephalosporins, the aminoglycosides, the revival of the sulfamides, and others.

When the causative organism is known, it is relatively simple to use the appropriate antibiotic. The *in vitro* evaluation of sensitivity does not insure the *in vivo* eradication of that organism. Many approaches have been presented to evaluate antibiotics in infectious pneumonia such as: dependence on bacterial sensitivity, straight clin-

ical trials reporting therapeutic results, one group of patients versus another group with two different antibiotics, and double blind studies. Because of cost, the armamentarium in the hospital pharmacy has been reviewed and has added another factor in the choice of an antibiotic.

We have realized that in the community the bacteria responsible for infectious pneumonia have changed, or at least the relative percentages of one to another are not the same as years ago. For this reason and because of the emergence of "new" pathogens, we should review our community reservoir of bacteria and our antimicrobial therapy.

This presentation deals with the choice of the initial antibiotic in cases of community acquired infectious pneumonia which have been hospitalized, and the type of bacteria isolated.

Material and Methods

This is a "retrospective study" of infectious pneumonia done in a 320 bed community hospital.

The Patients. One hundred consecutive cases of infectious pneumonia were evaluated. The only criterion was community acquired pneumonia requiring hospitalization. Nosocomial pneumonias were excluded. The diagnosis of pneumonia was made after the history and clinical findings warranted such a diagnosis, and was confirmed by radiological evidence of pneumonia. Patients of all ages were included.

Laboratory Work-Up. At least 2 blood cultures were performed, except in young children, before antibiotic treatment. Sputum was assessed by

Fredy Roland, MD, Director, Infectious Diseases, The Memorial Hospital, Pawtucket, Rhode Island; Associate Professor Medicine, Brown University, Providence, Rhode Island.

checking on the relative amounts of leukocytes and squamous epithelial cells.² Gram stain and morphology studies of the bacteria seen were carried out in order to determine a predominant organism. Sputum cultures were evaluated by growth on agar media able to sustain the growth of fastidious organisms, *Hemophilus influenzae*, *Neisseriae* species, and gram negative bacteria. A sputum culture was reported as negative "normal flora" when there was mixed growth without predominant bacteria. Predominant organisms were reported when there was a numerical excess of their colonies on agar media.

Serology. Cold agglutinin studies were performed on some patients. Also acute and convalescent serum specimens were taken when necessary. It should be noted that because this is a retrospective study no control was possible on the tests ordered by the physicians.

Antibiotics. Antibiotic use was recorded from the patients' charts. Only the antibiotics prescribed first were recorded and analyzed. As this presentation deals with the physicians' use of the initial antibiotic(s) in pneumonia, no attempt was made to correlate the antibiotics with the outcome of the pneumonia. The author is well aware of the criticisms that this approach invites, but it is an investigation of what antibiotics the physician prescribes before the laboratory results are available and no more. It is not a review of what should be done, but of what has been done. Even so, a discussion of the initial antibiotic therapy in regard to the laboratory findings is in order.

The one hundred pneumonia cases occurred in the months of November, December, and January. All pneumonia cases were investigated, and there was no selection of some pneumonias versus others. They were all community acquired. The underlying diseases of the patients, when present, were not recorded. The patients were divided into 3 groups: Pediatric (P) up to 17 years old, Adult (A) from 18 to 65 years old, and Geriatric (G) after 65 years.

Results

The data accumulated were evaluated from four points of view: 1) the percentages of the bacteria isolated from the sputum for the three groups of patients; 2) the initial antibiotic(s) prescribed with their relative use in each group; 3) what initial antibiotic(s) was used in relation to the laboratory findings for mixed flora, *Streptococcus pneumoniae*, *Hemophilus influenzae*, and *Klebsiella pneumoniae*; and 4) an evaluation of the laboratory findings when a combination of antibiotics was used.

Bacteria Isolated. Normal mixed flora (no pathogens isolated) was the most frequent finding in the G group at 46.5 per cent (Tables 1 and 2). In A group it was 33.3 per cent. *Pneumococcus* was the most frequently isolated in the three groups of patients: P 33.3 per cent, A 19 per cent, and G 10.3 per cent. *H. influenzae* was the second most frequently isolated bacterium; A 19 per cent, P 14.2 per cent, and G 3.6 per cent. Possible *Mycoplasma* suspected because of a positive cold agglutinin of at least 64 dilutions (not followed by specific serology by the attending physicians) was most frequently seen in the P group. Results are as follows: P 14.2 per cent, A 4.7 per cent, G 3.4 per cent. *Klebsiella pneumoniae* was isolated only in the P group (4.7 per cent) and the G group (6.8 per cent). It was in the G group that we encountered the greatest diversity of bacteria (Table 2). It should be noted that in 14 per cent of the patients no sputum cultures were obtained.

Initial Antibiotic(s) Prescribed. The relative frequency of antibiotics used is reported in Tables 3 and 4. In the P group erythromycin, followed by ampicillin and penicillin, was the most frequently used. On the contrary, in the A and G groups, ampicillin, erythromycin, and penicillin were the most frequently used. In the A group, cephalosporin 14.2 per cent, oxacillin 4.7 per cent, and a combination of antibiotics 23.8 per cent were used. In the G Group, aminoglycoside 8.5 per cent, oxacillin 5.1 per cent, and cephalosporin and tetracycline both at 1.7 per cent were used. Antibiotic combinations were used 8.5 per cent of the cases.

Initial Antibiotics Used in Relation to the Laboratory Findings. The following were the findings. Normal flora: penicillin 10 per cent, erythromycin 9 per cent, ampicillin 8 per cent (Table 5). *Pneumococcus* (Table 6): – 17 isolates-penicillin 6 per cent, erythromycin 4 per cent, ampicillin and antibiotic combination 3 per cent. *H. influenzae*: – 12 isolates-ampicillin 5 per cent, penicillin and erythromycin 2 per cent, cefoxitin and combination 1 per cent. *K. pneumoniae*: – 6 isolates-erythromycin 4 per cent, ampicillin 2 per cent. Suspected *Mycoplasma*: 5 cases where ampicillin, oxacillin, cefoxitin, gentamicin, and no antibiotic prescribed were used respectively. A combination of antibiotics was used in 10 per cent of the cases (Table 7). The most frequently used was ampicillin + gentamicin (3/10), penicillin + gentamicin and oxacillin + gentamicin (both 2/10); erythromycin + ampicillin, penicillin + oxacillin, and clindamycin + gentamicin were each used once.

Discussion

This study of the laboratory findings in 100 community acquired infectious pneumonias and in the use of the initial antibiotic does not pretend to evaluate the appropriateness of the use of antibiotic(s) in pneumonia. Nevertheless, a discussion of some findings in relation to other authors' reports is in order, and some recommendations can be made as to what should be stressed in the initial treatment of pneumonia.

At times, there are in the literature criticisms of gram staining and culture of sputum. It is always desirable to know what one is treating.³ The etiology of the pneumonia must be defined as specifically as possible.⁴ An attempt should always be made to collect a sample of sputum for microscopy and culture before an antibiotic is given.⁵ Now that we have criteria to judge the quality of a sputum,² education on how to obtain a good specimen before treatment should be encouraged.³ The gram stain frequently provides an initial impression of the presence of potentially pathogenic organisms which may be related to the respiratory infection and is considered by most to be a useful preliminary guide to the bacteria that may be recovered by culture.⁶ "Potential pathogens, useful preliminary guide" should

be stressed. This does not mean that the bacteria seen and isolated are always the cause of the pneumonia.

The sputum gram stain is usually the procedure that most influences the choice of therapy. Its real value lies not in telling us the exact bacterial diagnosis, but in raising the possibility of staphylococcal, gram negative, or fungal pneumonia. The presence of large numbers of these organisms on the stain is an indication for further diagnostic studies.⁴ The treatment is based on clinical judgement and any microscopic evidence available.

Routine sputum culture for diagnosis may be a "sacred cow," but a specific bacteriologic diagnosis remains highly desirable.⁷ Very often the documentation of bacterial pneumonia was based on isolation of pathogens from the culture. Some authors put less emphasis for treatment on the culture than on the gram stain, the only test available before antibiotic therapy.⁷ If pneumonia is in question, should a culture be done on all sputa or should it be done only when the gram stain does not give any indication of a specific pathogen and when the patient cannot tolerate a transtracheal aspiration? Whatever the drawbacks of gram stain and sputum culture, these two tests are the most common techniques used in the pursuit of a causative agent, despite the ubiquitous mixed flora and the frequency of the carrier state for pneumococci,⁸ probably for the meningococci, and also possibly other bacteria. This author is convinced that sputum stain and culture will be used for a long time, at least until new techniques are developed, such as locating the presence of bacterial antigen in the sputum, blood, and urine, or direct fluorescent microscopy on sputum, either of which could give us more specific information on the causative agent in pneumonia, or both. If we recognize that sputum examination suffers from the lack of a

Table 1. Laboratory Findings in 100 Patients

Normal Flora	38
Pneumococcus	17
H. flu	12
Cold agglutinins	6
Klebsiella	5
Streptococcus	2
Staph. aureus	2
Enterococcus	2
Meningococcus	1
E. coli	1
No culture	14

Table 2. Laboratory Findings by Age Group

PEDIATRIC (22)		ADULT (21)		GERIATRIC (67)	
Pneumococcus	33.3	Pneumococcus	19.0	Pneumococcus	10.3
H. flu	14.2	H. flu	19.0	H. flu	8.6
Klebsiella	4.7	Staph. aureus	9.5	Klebsiella	6.8
Cold agglutinins	14.2	Streptococcus	4.7	Enterococcus	3.4
Normal flora	19.0	Cold agglutinins	4.7	Streptococcus	1.7
		Normal flora	33.3	Meningococcus	1.7
				E. coli	1.7
				Cold agglutinins	3.4
				Normal flora	46.5

method to distinguish with reliability pathogen from non-pathogen and that the sputum culture cannot always demonstrate the etiologic agents of pneumonia, it is still a practical means to try to use the best antibiotic for a particular case. The fact that we have recognized the changes of bacteria in pneumonia makes the findings of sputum culture assume singular importance.⁷

Is there really a change in the bacterial causative agents in pneumonia? *Hemophilus influenza* has become increasingly recognized as a cause of bacterial pneumonia. One of the factors probably responsible for this is improved bacteriologic techniques for the isolation of this bacteria.⁹ This is an important finding especially in view of the possible resistance to ampicillin. In our study *Hemophilus* was the second most frequently isolated bacterium, 12 per cent, to the pneumococcus 17 per cent. Another factor in the change of bacteria in pneumonia is the increasing use of antibiotics for other infections or exacerbation of chronic pulmonary diseases. Some authors have studied the differences in bacteria isolated in pneumonia from patients admitted to the hospital in relation to where they came from: community versus nursing homes. It is not where the patients come from that is important, but rather

if the patients prior admission for pneumonia, had been given antibiotics.¹⁰ In these patients one can expect a greater percentage of gram negative bacilli as the etiologic agent of pneumonia. This author has investigated the frequency of antibiotic use in several nursing homes in Rhode Island. The average is 10 per cent. Many antibiotics are given for urinary tract infections.

Cefamandole has been proposed as the initial antibiotic in infectious pneumonia.¹¹ The reason given is the increase in *Hemophilus*, *Klebsiella*, and *Staphylococcus* causing pneumonia in residents of nursing homes who are not capable of producing "quality" sputum or who have recently received antibiotics. In our survey *Hemophilus*, *Klebsiella*, and *Staphylococcus* accounted for 15 per cent of the isolates in the geriatric group. Some of the drawbacks of cefamandole (and all cephalosporins) have been minimized. Penicillin allergy is a contraindication. Meningitis has developed during cephalosporin therapy.¹² BUN elevation,¹³ leukopenia,¹⁴ hepatitis,¹⁵ anemia and spherocytosis due to hemolysis¹⁶ have been reported. These reactions are most of the time reversible, but cephalosporins have to be discontinued when they occur, defeating the purpose of their use.

Two other factors associated with cephalosporin therapy have been ignored. In the epidemic of *Legionella pneumophila* in Philadelphia the fatality ratio was higher in patients treated with cephalothin 20/49.¹⁷ The prevalence of *L. pneumophila* pneumonia and pulmonary infections is not known, but is probably higher than before realized.¹⁸⁻¹⁹ Cephalosporins have to be avoided in cases of suspected infections with *L. pneumophila*. The second factor is that there is a greater eradication of normal flora with the cephalosporins than with the penicillin and erythromycin. When an unusual bacterium is isolated, a cephalosporin or an aminoglycoside has usually been used previously.²⁰ Cephalosporins have their in-

Table 3. Most Frequently Prescribed Antibiotics — Percentages

Ampicillin	29%
Erythromycin	22
Penicillin	18
Combination	10
Cephalosporin	5
Aminoglycoside	5
Oxacillin	4
Tetracycline	1
None	6

Table 4. The Most Often Prescribed Antibiotics by Age Group

PEDIATRIC		ADULT		GERIATRIC	
Erythromycin	33.3	Ampicillin	23.8	Ampicillin	31.0
Ampicillin	28.5	Combination	23.8	Erythromycin	18.9
Penicillin	19.0	Erythromycin	19.0	Penicillin	18.9
None	14.2	Penicillin	14.2	Combination	8.5
Cephalosporin	4.7	Cephalosporin	14.2	Aminoglycoside	8.5
		Oxacillin	4.7	Oxacillin	5.1
				None	5.1
				Cephalosporin	1.7
				Tetracycline	1.7

dications but they are limited, and caution should be associated with their use.

Combinations of antibiotics are more frequently used than was the case years ago. The choices are multiple: gentamicin + oxacillin when there are signs of respiratory and circulatory failure, oxacillin being replaced by erythromycin in patients allergic to penicillin.⁵ Gentamicin + erythromycin will cover the whole range of bacterial infections, mycoplasma, and some bacteroides that are rarely a cause of pneumonia.¹⁸ Oxytetracycline + rifampin will cover a very wide variety of microorganisms. The combination does not contribute to the emergence of resistant strains of *Mycobacterium tuberculosis* or gram negative bacteria.²¹ Lately, because of mycoplasma and *L. pneumophila* infections, erythromycin has been suggested as the sole agent²² for the treatment of pneumonia, or in combination with an aminoglycoside,¹⁸ oxacillin,⁵ or rifampin.²² Erythromycin alone is of questionable value in severe pneumonia; the therapeutic response is slower than with other antibiotics. Nevertheless, in mild pneumonia it may be the antibiotic of choice. Phlebitis is the major side effect of erythromycin.

One should not forget that successful therapy of pneumonia achieved with an antibiotic or a combination of antibiotics could also be achieved with less harmful antibiotics.

From our study some general conclusions can be drawn. In all patient groups, pneumococcus is

still the bacterium most frequently isolated. If only the etiologic bacterial agents of pneumonia are considered, pneumococcus was found in 35.4 per cent of the cases. Dorff et al,²⁴ in a municipal hospital found pneumococcus in 58.0 per cent of their cases. The three antibiotics most frequently used were: ampicillin 27.7 per cent, erythromy-

Table 5. Initial Antibiotics When Only Normal Flora Present

PEDIATRIC	Penicillin	1
	Ampicillin	1
	Erythromycin	1
	None	1
ADULT	Penicillin	1
	Ampicillin	2
	Erythromycin	2
	Cefoxitin	1
	Keflex	1
GERIATRIC	Penicillin	8
	Ampicillin	5
	Erythromycin	6
	Aminoglycoside	3
	Oxacillin	1
	Tetracycline	1
	Penicillin-Gentamicin	1
	None	2
TOTAL	Penicillin	10
	Erythromycin	9
	Ampicillin	8

Table 6. Initial Antibiotic(s) Use in Regard to Laboratory Findings

	PNEUMOCOCCUS		HEMOPHILUS INFLUENZAE		KLEBSIELLA			
PEDIATRIC	Penicillin	3	Erythromycin	2	Pediatric	3	Erythromycin	3
	Ampicillin	2	Ampicillin	1	Adult	1	Ampicillin	1
	Erythromycin	1			Geriatric	2	Ampicillin	1
	None	1					Erythromycin	1
ADULT	Penicillin	1	Penicillin	1	COLD AGGLUTININS			
	Erythromycin	2	Oxacillin	1				
	Combination	1	Cefoxitin	1	Pediatric	1	None	1
	Oxa. + Gent.				Adult	0		
GERIATRIC			Combination Eryt. + Amik.	1	Geriatric	4	Ampicillin	1
	Penicillin	2	Ampicillin	4			Oxacillin	1
	Ampicillin	1	Penicillin	1			Cefoxitin	1
	Erythromycin	1					Gentamicin	1
	Combination	2						
	Pen. + Gent.							
	Amp. + Gent.							

Table 7. Initial Combination of Antibiotics in Regard to Laboratory Findings

Ampicillin and Gentamicin	Group A Strep. Staph. aureus Pneumococcus
Penicillin and Gentamicin	Pneumococcus Mixed Flora
Oxacillin and Gentamicin	Pneumococcus No culture
Erythromycin and Amikacin	H. influenzae
Clindamycin and Gentamicin	No culture

cin 23 per cent and penicillin 17.4 per cent. Sputum cultures, even if only questionably relevant in pneumonia, should be obtained. The careful clinical evaluation of the patient is of utmost importance in the choice of an antibiotic. The degree of therapeutic aggressiveness depends on the gravity of the pneumonia. Cold agglutinins (not diagnostic for, but suspicious of mycoplasma infections) should be obtained in all cases of pneumonia, especially in the winter months and regardless of age.²³ Serologic tests for *L. pneumophila* should be performed in all cases of pneumonia when the causative organism is not found within two days.

The bacteria have not changed in pneumonia — the patients have. Clinical judgement, helped by the microbiological laboratory, and knowing the patient's past history, the previous use of antibiotics, the community reservoir of infectious agents, and the epidemiology of the pulmonary infections in the community, are the best guides as to the initial choice of antibiotic(s) in community acquired infectious pneumonia.

References

¹ Van Scoy RE: Bacterial sputum cultures: A clinician's viewpoint. *Mayo Clin Proc* 52:39-41, Jan 77.
² Bartlett RC: Medical Microbiology. Quality Cost and Clinical Relevance. New York, Wiley, 1974, pp 24-30.
³ Spencer RC, Philip JR: Effect of previous antimicrobial therapy

on bacteriological findings in patients with primary pneumonia. *Lancet* 2:349-350, 18 Aug 73.
⁴ Clark JT: Planning antibiotic therapy of pneumonia. *Geriatrics* 32:51-59, Nov 77.
⁵ Ogilvie CM: Diseases of the respiratory system: Pneumonia. *Br Med J* 1:771-773, 25 Mar 78.
⁶ Bartlett RC, Melnick A: Usefulness of gram stain and routine quantitative culture of sputum in patients with and without acute respiratory infection. *Conn Med* 34:347-351, May 76.
⁷ Barrett-Conor E: The nonvalue of sputum culture in the diagnosis of pneumococcal pneumonia. *Am Rev Respir Dis* 103:845-848, Jun 71.
⁸ Davidson M, Tempest B, Palmer DL: Bacteriologic diagnosis of acute pneumonia. Comparison of sputum, transtracheal aspirates and lung aspirates. *JAMA* 235:158-163, 12 Jan 76.
⁹ Wallace RJ Jr, Musher DM, Martin RR: Hemophilus influenzae pneumonia in adults. *Am J Med* 64:87-93, Jan 78.
¹⁰ Garb JL, Brown RB, Garb JR, et al: Differences in etiology of pneumonias in nursing home and community patients. *JAMA* 240:2169-2172, 10 Nov 78.
¹¹ Gleckman RA, Esposito AL: Bacterial pneumonia in the elderly: A reappraisal of conventional therapy, with a note on cefamandole. *J Am Ger Soc* 27:345-347, Aug 79.
¹² Mangi RJ, Kundargi RS, Quintiliani R, et al: Development of meningitis during cephalothin therapy. *Ann Intern Med* 78:347-351, Mar 73.
¹³ Plotkin GR: Cefazolin vs penicillin. *JAMA* 242:1849, 26 Oct 79.
¹⁴ Homayouni H, Gross PA, Setia U, et al: Leukopenia due to penicillin and cephalosporin homologues. *Arch Internal Med* 139:827-828, Jul 79.
¹⁵ Lambert DH: Cephalosporin hepatitis. *Anesthes Analges* 59:806-807, Oct 80.
¹⁶ Moake JL, Butler CF, Hewell GM, et al: Hemolysis induced by cefazolin and cephalothin in a patient with penicillin sensitivity. *Transfusion* 18:369-373, May 78.
¹⁷ Fraser DW, Tsai TR, Orenstein W, et al: Legionnaires' Disease: Description of an epidemic of pneumonia. *New Engl J Med* 297:1189-1197, 1 Dec 77.
¹⁸ Fallon RJ: Diseases of the respiratory system. *Br Med J* 1:1146-1147, 29 Apr 78.
¹⁹ Roland FP: Pulmonary Legionnaires' Disease without pneumonia. *JAMA* 246:214, 17 Jul 81.
²⁰ Maia A, Goldstein FW, Acar JF, Roland F: Isolation of eikenella corrodens from human infections. *J Infect Dis* 2:347-353, Feb 80.
²¹ Fraser DW, Wachsmuth IK, Bopp C, et al: Antibiotic treatment of guinea-pigs infected with agent of Legionnaires' Disease. *Lancet* 1:175-178, 28 Jan 78.
²² Meenhorst PL, van der Meer JW, Blusse A, et al: Treatment of suspected sporadic cases of Legionnaires' Disease. *Lancet* 1:711, 1 Apr 78.
²³ Roland FP: Management of atypical pneumonias in view of the new entity "Legionnaires' Disease." *RI Med J* 61:270-272, Jul 78.
²⁴ Dorff GJ, Rytel MW, Farmer SG, et al: Etiologies and characteristic features of pneumonias in a municipal hospital. *Am J Med Sci* 266:349-358, Nov 73.

The Memorial Hospital
Pawtucket, RI 02860

The Relationship Between Work Impairment and Diagnosis

Schizophrenia and Bipolar Affective Disorder Impair Work Performance More Than Other Diagnostic Entities

Patricia Neely Wold, MD
Abby G. Rosenfield, PhD
Kirby Dwight

The purpose of this study was to examine the concordance between specific diagnostic categories, using recent classifications, and the degree of malfunction in work performance.

There is some evidence¹ that in a community mental health clinic population patients on welfare comprise a group which responds differently to the treatment typically offered. It has also been suggested that the group of patients maintained on welfare may have a larger percentage of genetically vulnerable persons than has the patient group of employed persons in the same social class. A study² which correlated family history of specific mental illness with welfare dependence demonstrated a positive correlation within social class V among schizophrenics and depressives. The kind of affective disorder was not delineated.

However, it is obvious that the need for welfare assistance derives from many factors. Mental illness may or may not be a contributing factor. Specific kinds of mental illness may be more likely

than others to incapacitate people. If the incapacity continues for long periods or frequently recurs, welfare may be the best or only means of support.

The classification of affective disorders has been undergoing revision during the past decade. The DSM II* divided depression into endogenous and neurotic with sub-categories of each. This was considered insufficiently specific, and a number of new diagnostic schemata were proposed.

Feighner³ et al proposed the Research Diagnostic Criteria to delineate primary affective disorder from the depressive syndrome. The term primary affective disorder (PAD) had been defined by Robins and Guze⁴ to include depression and mania. PAD was differentiated from secondary depression, which referred to feelings of sadness and hopelessness during the course of other psychotic or physical illness. Symptoms of PAD were: dysphoric mood, anorexia, sleep disorder, loss of energy, psychomotor retardation or agitation, loss of interest, decreased libido, self-reproach, poor concentration and thoughts of suicide lasting at least one month. There is general agreement that disorders of this definition exist, but still many terms are used to label them. Bipolar illness, defined by Winokur,⁵ was further stated to be found typically in conjunction with a positive family history of mania, depression, alcoholism, and two generations of affective disorder,

Patricia Neely Wold, MD, Clinical Assistant Professor, Brown University; Medical Director, Farley Community Mental Health Clinic, Providence, Rhode Island.

Abby G. Rosenfield, PhD, Psychologist, Farley Community Mental Health Clinic.

Kirby Dwight, Associate Professor of Chemistry, Brown University, Providence, Rhode Island.

* American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, ed 2, Washington, DC 1968.

including postpartum episodes, and was usually responsive to lithium. Unipolar depression was found to accord with a family history of depression, sociopathy, and alcoholism, but without mania, had an earlier onset than bipolar illness, and was responsive to tricyclic antidepressants. Winokur suggested the term depressive spectrum disease for this syndrome, which he further differentiated from late onset pure depressive disorder, also tricyclic responsive. Kupfer⁶ subdivided unipolar depression into tricyclic responsive and lithium responsive syndromes. He stated that lithium responders had a genetic makeup and family history similar to bipolar disorder, while persons who responded to tricyclic antidepressants were without a family history of mood swings or bipolar disorder, but showed a higher level of chronic anxiety during illness-free periods.

A variant of bipolar disorder has been reported in which manic and depressive features seem to be combined. It also has been given a number of labels. Himmelhoch et al⁷ wrote of mixed states of mania and depression characterized by drug and alcohol abuse, which they found to have a poor prognosis for successful treatment. Rifkin et al⁸ reported a similar disorder which was labeled emotionally unstable character disorder, a syndrome characterized by delinquent behavior and thought to be related to bipolar disease. Patients with this diagnosis were found to be responsive to lithium. Akiskal⁹ has described a condition called cyclothymic disorder, differentiated from hysteria and sociopathy by the behavioral manifestations of a biphasic nature which are ego dystonic. He noted that drug and alcohol abuse were common.

Spitzer and Endicott¹⁰ have suggested dividing affective disorder into intermittent and episodic depressive disorder. The latter includes unipolar and bipolar disorders, each of which is further subdivided. The diagnosis of intermittent depression resembles what was labeled neurotic depression in the DSM II. However, a study by Akiskal¹¹ of patients diagnosed as neurotic depression showed that 15 per cent suffered from recurrent unipolar depression and 10 per cent from manic depressive disorder, Bipolar Type II, ie, depression alternating with hypomania. He stated that these endogenous depressions are probably under-reported.

The extent to which each of these disorders diminishes the person's ability to function is unclear. Humphrey¹² studied outpatients, controls, and orthopedic outpatients with a mood-function

test in which he found a mood and function correlation of .82. Spouses' responses correlated with that of the patients. These diagnoses were paranoid schizophrenia and manic depressive disease. However, there was no comparison of functional disturbance among diagnoses. Blumenthal¹³ et al correlated the Zung self report scale with the Job Challenge Index and found moderate correlation. They point out that persons defining themselves as patients may have less ability to cope in spite of depression than depressed persons in the general population. They found perceived decline in function in the child-rearing role, which was corroborated by the spouse. The study also does not differentiate between types of depressive symptomatology. While other studies¹⁴ have demonstrated impairment of function associated with depression, this study is designed to focus on that degree of decline in function which involves changes in employment status or the need for help with home management. These rather gross changes are correlated with specific diagnoses.

Procedure

The subjects in this study were 218 consecutive admissions to the Farley Community Mental Health Clinic during the interval from April 1979 to April 1980. To aid in establishing the diagnosis the Schedule for Affective Disorder and Schizophrenia (SADS) standardized interview was used. This schedule establishes criteria for diagnoses for subtypes of affective disorder and schizophrenia as well as other diagnoses listed in the DSM III.* For certain disorders additional, more stringent criteria were added to the SADS criteria. For the diagnosis of Cyclothymic Disorder, four of the six symptoms described by Akiskal⁹ were required, rather than simply the description of mood swings as outlined under Cyclothymic Personality in the SADS. These criteria are described in Table 1.

Each subject was rated as to whether or not work impairment was present. Work performance was considered to be unimpaired if the person was employed, a full-time student, a homemaker with children at home who was able to manage the house without outside assistance, or a person retired after age 62. Among persons not employed or in school or who reported a noticeable and different level of home management, an attempt was made to assess the severity and dura-

* American Psychiatric Association. Diagnostic and Statistical Manual, ed 3, Washington, DC 1980.

Table 1. Diagnostic Criteria for Cyclothymic Disorder.

- 1) irritable periods lasting a few days
- 2) explosive aggressive outbursts that were ego-dystonic and often followed by periods of guilty rumination
- 3) repeated buying sprees, financial extravagance or disaster
- 4) repeated shifts in line of work, study, interest
- 5) episodic or unexplained promiscuous behavior or extra-marital affairs
- 6) impulsive zeal in joining new movements and cults.

The disorder is of a biphasic nature with symptoms such as: hypersomnia alternating with decreased need for sleep, lack of self-confidence alternating with grandiose overconfidence, unevenness of productivity often with unusual self-imposed working hours, periods of mental confusion alternating with sharpened thinking, people seeking alternating with introversion, drug abuse in which stimulants alternate with sedatives or dyspomania.

Table 2. Number and Percentage of Subjects in Each Diagnostic Category.

Diagnosis	Number	Percent
Adolescent Adjustment Reaction	4	1.9
Grief Reaction	6	2.8
Not Ill	6	2.8
Anxiety Disorders	10	4.6
Schizophrenia	10	4.6
Bipolar I	10	4.6
Marital Maladjustment	13	6.0
Schizo-Affective Psychosis	14	6.5
Cyclothymia	14	6.5
Minor Episodic Disorder	16	7.4
Bipolar II	26	12.0
Intermittent Depression	40	18.5
Major Episodic Disorder	47	21.8

tion of the work impairment. Although self-report items are likely to be underestimated, the criteria were factual items. Chronic impairment was judged to be present if an employed person had had more than 5 jobs in 5 years after the age of 19, had been unemployed more than one year, was staying out of school or had been suspended, or required help with home management. The existence of chronically poor job performance might be related to family cultural patterns or economic conditions rather than to symptoms of mental illness. These factors, however, would be equally prevalent in all diagnostic categories. Furthermore, the previous study² done in the same community demonstrated a positive correlation between the family history of the specific diagnosis and welfare within social class V. This

suggests that low socio-economic status itself need not be a factor. If the impairment were simply the result of depressive symptoms, one would expect more impairment with a longer period of depressive symptoms as in intermittent depression which requires at least two years of symptomatology. However, if a significant correlation were to be found between specific diagnoses and chronic work impairment, a causal relationship might be inferred.

Patients who were subjects of this study were found to fit into 13 separate diagnostic categories. Numbers in each category and the percentage of the total comprised by each are shown in Table 2.

Results

Using the chi square test for significance, each diagnostic group was compared with the entire group for impairment or non-impairment of work performance. The following diagnoses had significant work impairment: Bipolar I ($p < .01$), Cyclothymic Disorder ($p < .02$), and Schizophrenia ($p < .01$). Each diagnosis was also compared with the group of Marital Maladjustment who had sought help for problems in living, but were not mentally ill. The above diagnoses all differed from Marital Maladjustment at the .01 level of significance. Schizoaffective Disorder also showed significantly greater impairment than Marital Maladjustment ($p < .02$). Other diagnostic groups did not differ in work impairment from the entire group or from Marital Maladjustment.

Discussion

This study indicates that among voluntary patients of a community mental health clinic, certain diagnoses are associated with greater job malfunction than others. The malfunction does not necessarily correspond to severity of symptoms. As an example, patients diagnosed as having major episodic depression have been found to exhibit more severe symptoms than other groups of depressed patients,¹⁵ but are not significantly more chronically job-impaired than others. Nor does job impairment relate to the length of time of the depression; for example, in intermittent depression, persons may be depressed for over two years and yet carry out job responsibilities. Inability to maintain employment seems to be particularly associated with bipolar affective disorder, with its discrete manic periods and chronic impulsivity and with the schizophreniform disorders, with their distortion of reality. This may

explain the previously reported¹⁶ association between the diagnosis of cyclothymic disorder and welfare dependence. The frequent changes in work or study common to this diagnosis serve to prevent the accumulation of savings or fringe benefits and may result in an increased likelihood of being on welfare. The fact that persons with long or severe periods of depression, such as intermittent depression and major episodic depressive disorder, or both are likely to be able to maintain employment suggests that depression by itself is insufficient to produce a need for welfare and can only do so in combination with the impulsivity characteristic of bipolar disorder or the distortion of reality as seen in schizophrenia. Further studies are needed to determine whether within the welfare population there may be an accumulation of persons with these mental illnesses.

This study suggests that bipolar affective disorder as well as the schizophreniform disorders are significantly more likely to result in chronic work impairment than other kinds of affective disorder or other problems in living seen in a mental health clinic. These findings point up the critical need for accurate diagnosis in community mental health clinics, in order that specific and appropriate treatment which includes medication can be provided. When the symptoms of bipolar disorder, such as the impulsivity leading to shop-lifting or cashing bad checks, explosiveness which results in wife or child abuse, alcoholism, or drug abuse, are seen to be merely social problems, medication may be mistakenly withheld. Therapy needs to include the management of medication as well as the development of interpersonal and social skills.

Summary

The concordance between work performance and diagnosis was studied in a community mental

health clinic population. Schizophrenia and bipolar affective disorder (were found to) impair work performance (significantly) more than other (diagnostic) entities.

References

- ¹ Wold P, Steger J: Social class and group therapy in a working class population. *Community Ment Health J* 12:335-341, Winter 76.
- ² Wold P, Soled S: The family history of mental illness and welfare dependence. *J Clin Psychiatry* 39:328-331, Apr 78.
- ³ Feighner JP, Robin E, Guze S, et al: Diagnostic criteria for use in psychiatric research. *Arch Gen Psychiatry* 26:57-63, Jan 72.
- ⁴ Robins E, Guze SB. Classification of affective disorders. National Institute of Mental Health, 1972.
- ⁵ Winokur G: The types of affective disorders. *J Nerv Ment Dis* 156:82-96, Feb 73.
- ⁶ Kupfer DJ, Pickar D, Himmelhoch JM, et al: Are there two types of unipolar depression? *Arch Gen Psychiatry* 32:866-871, Jul 75.
- ⁷ Himmelhoch JM, Dawood M, Neil JF, et al: Incidence and significance of mixed affective states in bipolar population. *Arch Gen Psychiatry* 33:1062-1066, Sept 76.
- ⁸ Rifkin A, Quitkin F, Carrill C, et al: Lithium carbonate in emotionally unstable character disorder, *Arch Gen Psychiatry* 27:519-523, Oct. 72.
- ⁹ Akiskal HS, Djenderdjian AM, Rosenthal RH, et al: Cyclothymic disorder: Validating criteria for inclusion in the bipolar affective group. *Am J Psychiatry* 134:1227-1233, Nov 77.
- ¹⁰ Spitzer RL, Endicott J: Collaborative Program on Psychobiology of Depression, National Institute of Mental Health Clinical Research Center.
- ¹¹ Akiskal HS, McKenny WT Jr: Overview of recent research in depression: Integration of ten conceptual models into a comprehensive clinical frame. *Arch Gen Psychiatry* 32:285-301, Mar 75.
- ¹² Humphrey M: Functional impairment in psychiatric outpatients. *Brit J Psychiat* 113:1142-1151, Oct 67.
- ¹³ Blumenthal MD, Dielman TE: Depressive symptomatology and role function in a general population. *Arch Gen Psychiatry* 32:985-991, Aug 75.
- ¹⁴ Wollert RW, Buchwald AM: Subclinical depression and performance expectations, evaluations of performance, and actual performance. *J Nerv & Ment Dis* 167:237-242, Apr 79.
- ¹⁵ Wold PN, Rosenfield A, Dwight K: Clinical Diagnostic Categories and Levels of Depressive Symptomatology, to be published.
- ¹⁶ Wold P: The KDS-3A as a guide to diagnosis. *RI Med J* 63:298-304, Aug 80.

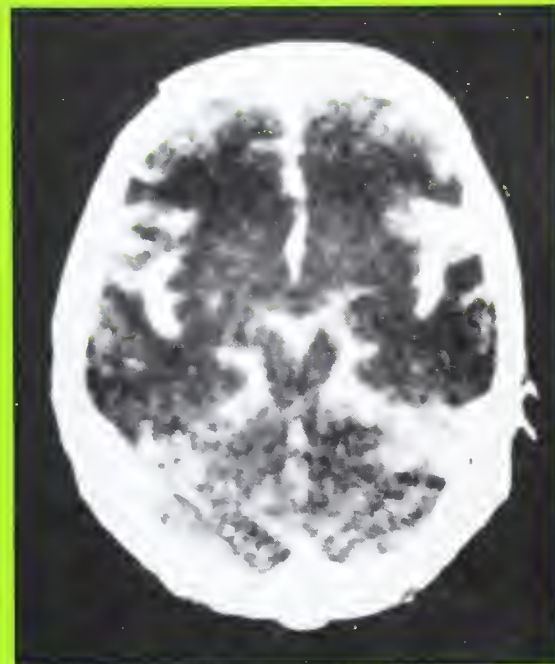
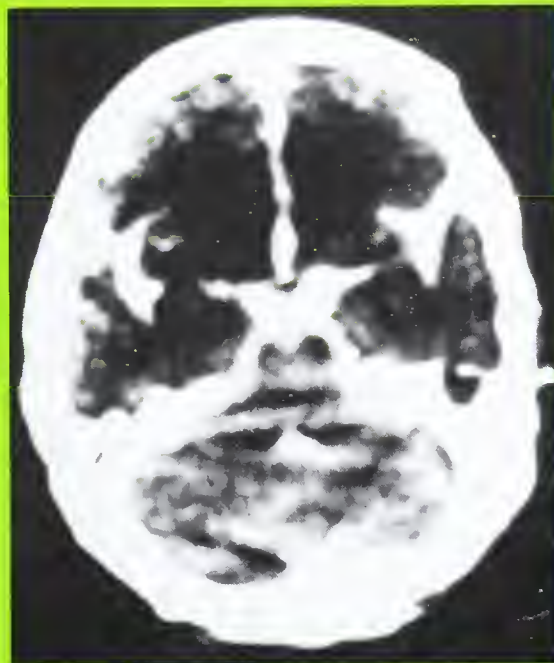
Patricia Wold, MD
355 Thayer Street
Providence, RI 02906

Rhode Island Medical Journal

May 1982

Volume 65, Number 5

CT Diagnosis of
Subarachnoid Hemorrhage
See pages 189-190



CONTRIBUTIONS

- 193 Erythroblastosis in a First Born Infant
199 South Providence Health Needs Assessment
203 Role of a Professional Society of Cancer Care Physicians

NEWSLETTER

181 PRESIDENT'S CORNER

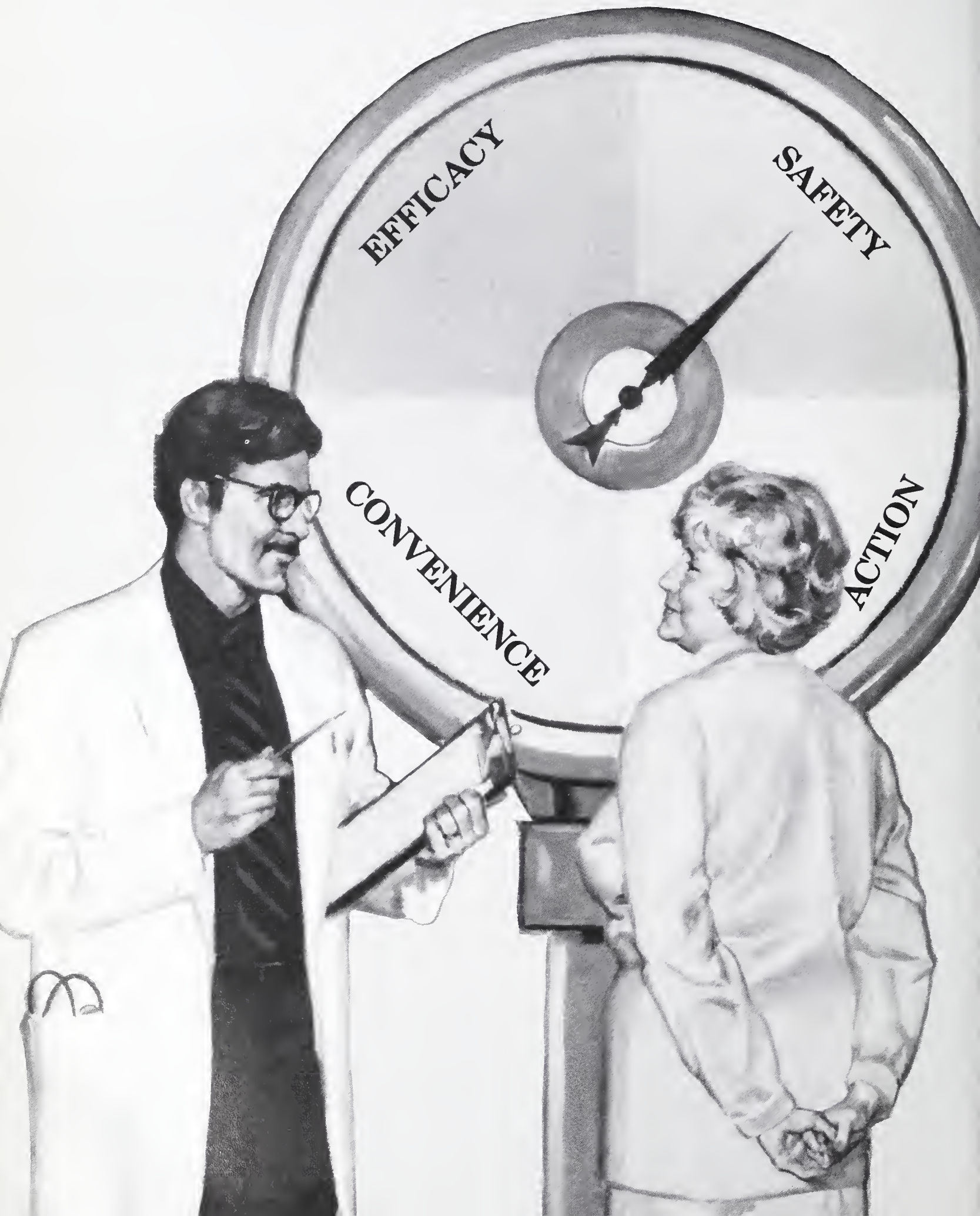
183 EDITORIALS

185 REPORT OF THE HOUSE OF DELEGATES

189 PROGRESS IN NEUROLOGY

LIBRARY
U.C. SAN FRANCISCO
JUN 3 1982

When your overweight patients seek your help with a weight reduction plan...



The benefits will outweigh the risks when you prescribe MELFIAT® 105

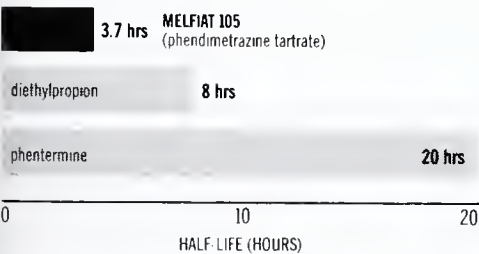
Because MELFIAT 105 effectively controls appetite.

MELFIAT 105 (phendimetrazine tartrate), an effective anorexiant, provides the appetite control overweight patients often need to begin a successful program of weight reduction. And the positive results of initial short-term therapy with MELFIAT 105 can help motivate them to a lifelong commitment of weight control.

Because MELFIAT 105 has a 3.7 hour half-life and low abuse potential.

Therapeutic efficacy combined with a short half-life and minimal abuse potential make MELFIAT 105 the drug of choice in the treatment of exogenous obesity. Because MELFIAT 105 has a short half-life, it minimizes drug accumulation and helps to eliminate such effects as disturbed sleep patterns. And, because MELFIAT 105 has significantly lower abuse potential than the amphetamines¹, there's less risk to your patients. According to a NIDA (National Institute on Drug Abuse) report, phendimetrazine appears to be the least abused anorexiant when compared to phentermine and diethylpropion¹.

Half-life comparison of MELFIAT 105 and other anorexiant²



MELFIAT® 105 UNICELLES® C^{III}

(phendimetrazine tartrate)
Sustained-Release Capsules 105 mg

Because MELFIAT 105 is in a sustained-release capsule.

MELFIAT 105 provides your patients with continuous drug delivery for appetite control that lasts throughout the day and helps to eliminate compulsive snacking and overeating at meals. In addition, the sustained-release capsule form maintains more constant blood levels of MELFIAT 105...without peaks and valleys.

Because MELFIAT 105 offers convenient, once-a-day dosage.

MELFIAT 105 is available in a convenient capsule containing 105 mg. The simple morning dosage regimen is designed to encourage compliance, minimizing the chance of missed doses and assuring optimum therapeutic results.

Because MELFIAT 105 is from Reid-Provident Laboratories, Inc.

Reid-Provident has the highest standards of quality to assure that only the finest products reach you. An advisory board of research scientists, physicians, pharmacists, and other technical staff continually review existing products and new product proposals to make sure that the latest pharmaceutical technology is used in their design and manufacture. That's because Reid-Provident is committed to you and your patients.

For more information please write to Reid-Provident Laboratories, Inc.
640 Tenth Street, N.W.
Atlanta, Georgia 30318

References: 1. Sheu YS, Ferguson JA, Cooper JR: *Evaluation of the Abuse Liability of Diethylpropion, Phendimetrazine, and Phentermine*, unclassified document ADAMHA, HHS, Office of Medical and Professional Affairs, NIDA, 1980.
2. Douglas JG, Munro JF: The role of drugs in the treatment of obesity, *Drugs* 21:362-373, 1981.

MELFIAT® 105 UNICELLES® C^{III}

(phendimetrazine tartrate) 105 mg Sustained Release Capsules

INDICATIONS AND USAGE: Melfiat® 105 (phendimetrazine tartrate) is indicated in the management of exogenous obesity as a short term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight-reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high-dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

USAGE IN PREGNANCY: The safety of phendimetrazine tartrate in pregnancy and lactation has not been established. Therefore, phendimetrazine tartrate should not be taken by women who are or may become pregnant.

USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdose.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure.

Central Nervous System: Overstimulation, restlessness, dizziness, insomnia, euphoria, dysphoria, tremor, headache, rarely psychotic episodes at recommended doses.

Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, other gastrointestinal disturbances.

Allergic: Urticaria.

Endocrine: Impotence, changes in libido.

OVERDOSAGE: Manifestations of acute overdose with phendimetrazine tartrate include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states.

Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma. Management of acute phendimetrazine tartrate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Acidification of the urine increases phendimetrazine tartrate excretion. Intravenous phentolamine (Regitine) has been suggested for possible acute, severe hypertension, if this complicates phendimetrazine tartrate overdose.

DOSAGE AND ADMINISTRATION: Since Melfiat® 105 (phendimetrazine tartrate) 105 mg is a sustained-release dosage form, limit to one sustained-release capsule in the morning. Melfiat® 105 (phendimetrazine tartrate) is not recommended for use in children under 12 years of age.

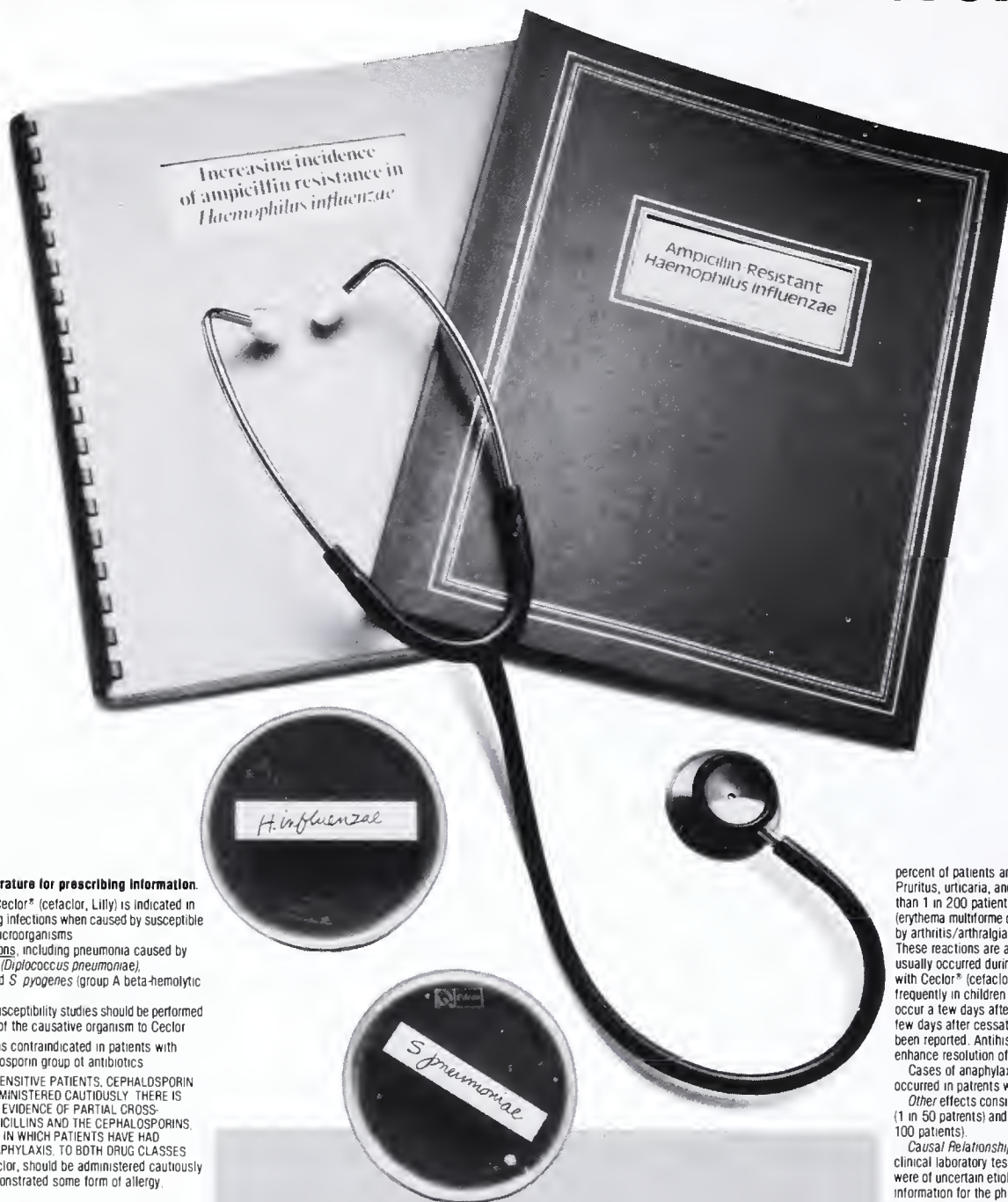
HOW SUPPLIED: Each orange and clear sustained release capsule contains 105 mg phendimetrazine tartrate in bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.



Reid-Provident Laboratories, Inc.
Atlanta, Georgia 30318

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.

Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefactor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefactor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefactor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefactor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5

percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefactor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain: Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). (100281R)

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975.
2. Antimicrob. Agents Chemother., 11:470, 1977.
3. Antimicrob. Agents Chemother., 13:584, 1978.
4. Antimicrob. Agents Chemother., 12:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11:880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.⁷

Ceclor®

cefactor

Pulvules®, 250 and 500 mg



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

Rhode Island Medical Journal

May 1982
Volume 65, Number 5

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Maurice M. Abela, MD

Paul Calabresi, MD

Herbert Fanger, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Charles E. Millard, MD
President

William F. Varr, Jr., MD
Vice President

David R. Hallmann, MD
Secretary

Melvin D. Hoffman, MD
President-Elect

Erminio Cardi, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Peter D. T. Clarisse, MD
Newport County Medical Society

Richard G. Bertini, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society



If you're disabled, what happens to your earning power?

Think how an unexpected accident or sickness could halt your income at any moment and you'll realize how important Disability Income Insurance can be. Now by applying for this policy, you can assure yourself of steady, continuing income benefits that go to work for you when you're disabled.

This policy is
Endorsed
by:
RHODE ISLAND
MEDICAL SOCIETY

As a member of the Rhode Island Medical Society, you'll get this coverage at a cost less than an individual policy.

For specific information on costs and coverage, write or phone the administrators.

Administered by:
 **LESTER L. BURDICK, INC.**
Loyalty Group Insurance

10 POST OFFICE SQUARE, BOSTON, MA 02109

(617) 426-0020

Local Representative: **JAMES M. FIGARA** (401) 434-7091


Underwritten by: **COMMERCIAL INSURANCE COMPANY**, 100 Wood Avenue South, Iselin, New Jersey 08830 • (201) 321-3800

TABLE OF CONTENTS

173	NEWSLETTER
181	PRESIDENT'S CORNER The Public Is Responsible for High Health Care Costs
183	EDITORIALS Paperless Claims Come to Rhode Island Third Generation Cephalosporins CT Scanning Turnabout
185	REPORT OF THE HOUSE OF DELEGATES Meeting January 20, 1982
189	PROGRESS IN NEUROLOGY Computerized Tomographic Diagnosis of Subarachnoid Hemorrhage and Its Complications
	CONTRIBUTIONS
193	Erythroblastosis in a First Born Infant <i>Clinical Pathological Conference</i> Peter S. Smith, MD Don B. Singer, MD
199	South Providence Health Needs Assessment <i>Data Delineate Problems Justifying a Major Community Effort</i> Frank Thacker John Fulton Fran Yapchaian William Flynn Bernard Beaudreau Barbara Sylvester Balbina Young
203	Role of a Professional Society of Cancer Care Physicians (Presidential Address, New England Cancer Society) <i>Provides a Unique Opportunity to Extend Knowledge of Cancer to the Public and to Practicing Physicians</i> Louis A. Leone, MD

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM[®] ^{IV}

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT



Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma. May be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white, 5 mg, yellow; 10 mg, blue—bottles of 100* and 500,* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.*

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*“To Some People We’re
More Than A Service.”*

Newsletter

May 1982

Charles E. Millard MD, Editor
Karen Challberg, Associate Editor

RIMS HOUSE OF DELEGATES: SPECIAL SESSION

In a special session of the Rhode Island Medical Society House of Delegates held May 3, 1982, a motion was unanimously voted that the Society go on record as supporting a bill in the Rhode Island General Assembly, H82-7695-A "An Act Relating to Physician Assistants." The motion in its passage included an amendment that suggested changes be transmitted for consideration by the proposed Board, if activated, as valuable clarifications to be considered in the effective administration of the bill.

BLUE SHIELD PLAN 100 NOW AVAILABLE TO RIMS GROUP

For many years, RIMS members subscribing to Blue Shield through the Society have been limited to Plan B. Now the Society is able to offer Plan 100 to its members, effective August 1, 1982. A mailing has gone to all of our current Blue Shield members advising them of this new and very attractive plan. RIMS members who do not presently have RIMS Blue Shield are also eligible.

TEL-MED (401) 521-7120

Tape-recorded telephone messages on "Breakfast--Why It Is Important," "Emotional Feelings after Childbirth," "Should I Keep My Child Home from School?" ... and 213 other subjects ... can help to reassure, remind, or inform your patients. The program is co-sponsored by the Rhode Island Medical Society. For more information and brochures contact Mrs. Nancy Alonso at Council for Community Services, (401) 861-5550.

RESEARCHERS REPORT ON ACCESS TO SKILLED NURSING FACILITIES (SNFs)

Researchers at the Urban Institute have found that Medicare and Medicaid patients have trouble getting the nursing home care they should. In a background study on the availability and need for skilled nursing facility services covered by Medicare and Medicaid that was prepared for the Health Care Financing Administration, researchers said that the two programs pay for an estimated 250,000 to two million hospital days per quarter for patients unable to find a nursing home bed.

(Washington Report on Medicine and Health 35(46):2, 23 Nov 81)

CANCER PREVENTION STUDY II

A new research project, Cancer Prevention Study II, has been launched by the American Cancer Society to identify risk factors which influence the causes of cancer. Nationwide 1,000,000 people will take part in the study over a six-year period representing a \$13 million investment by the American College of Surgeons. In Rhode Island 6,000 residents will be surveyed requiring the efforts of 450 local volunteers. Rhode Island co-chairmen of the project are Mrs. Belle Calenda and Frank Cummings MD, Head, Division of Oncology and Hematology at Roger Williams General Hospital.

FEMALE MDs: UNITED STATES and RHODE ISLAND

Of total physicians in the United States both federal and non-federal 12.0 per cent are women; in Rhode Island the percentage is slightly below average at 11.7.

Of residents-in-training in the United States 22 per cent are women; in Rhode Island the percentage is above average at 27.2.

(Michigan Medicine 81(18):199, Apr 82)

PEDIATRICIANS CALL FOR END OF GOVERNMENT SUPPORT FOR TOBACCO INDUSTRY

The American Academy of Pediatrics has issued a policy statement which "strongly recommends that all direct and indirect support by local, state, or federal governments of the production, distribution, or consumption of tobacco and tobacco products be phased out as rapidly as possible." The statement explains that the Academy "considers tobacco smoking to constitute one of the most important sources of environmental contamination and a significant threat to the health of children."

REFUSING AMBULANCE PATIENTS IN 3 NEW YORK CITY ERs

During April ambulances were almost continuously diverted from the emergency rooms of three major New York City hospitals because of overcrowding. Of 93 eight-hour ambulance shifts, Columbia-Presbyterian Medical Center ER refused ambulance patients for 83 shifts, Maimonides Medical Center ER for 82, and Brookdale Hospital and Medical Center ER for 74.

(The New York Times: 1, 41, 2 May 82)

NEEDED: FAMILY PRACTITIONER

A family practitioner is urgently needed for full time practice at Rainelle Community Medical Center in Rainelle, West Virginia. This facility is a modern, two-year-old primary care clinic located in a residential section of the east central mountains of West Virginia, serving a population of approximately 39,000 from the area's mining, lumber, and railroad industries. For more information, contact Rainelle Medical Center, 645 Kanawha Avenue, Rainelle, West Virginia 25962.

SETTLEMENT PROPOSED IN SEVEN-YEAR OLD RI DOCTORS' INSURANCE ANTITRUST CASE

In a proposed out-of-court settlement, four insurance company giants will turn over 1.1 million dollars to six hundred Rhode Island physicians who filed an antitrust suit against them in 1975. The one hundred million dollar class-action filed on June 4, 1975 alleged that the companies were guilty of engaging in a boycott and other illegal restraint of trade practices in their sale of malpractice insurance to the doctors.

The insurers, St. Paul Fire and Marine Insurance Company, Aetna Casualty & Insurance Company, Travelers Insurance Company and Hartford Casualty Company, all held that they were immune from federal antitrust suits by virtue of the McCarran-Ferguson Act of 1945. The Rhode Island federal district court agreed with several prior court decisions (in other cases) favoring insurance company antitrust immunity, and dismissed the case. Arguing that acts of boycott, coercion or intimidation exempted the insurance companies from the protection of the McCarran-Ferguson Act, the doctors appealed.

The United States Circuit Court of Appeals in Boston, on review of the case, overturned the district court decision when it said on May 16, 1977 that insurance companies are subject to antitrust suits when they engage in acts of boycott, coercion, or intimidation. The First Circuit Court stated, for the first time ever, that such behavior opens the insurance companies up to antitrust suits by policyholders, as well as by other insurance companies or agents.

Unwilling to accept this broader and more consumer-oriented interpretation of the so-called "boycott" exemption of McCarran-Ferguson, attorneys for the insurers petitioned the nation's highest court to review the case.

On October 31, 1977, the United States Supreme Court agreed to hear the case, and on March 27, 1978 oral arguments were given by both sides, with the Justice Department making a verbal presentation in support of the doctors. Finally, on June 29, 1978 the High Court spoke in a loud and clear voice affirming (by an unequivocal 7-2 margin) the appellate court decision that insurance policyholders may sue their insurers for alleged federal antitrust violations.

The suit, which then went back to the district court in Rhode Island for trial on its merits, proceeded ponderously through Discovery and eventually certification of the class, the District Court ruling upon that issue on October 24, 1980. With the case having been scheduled to go to trial in April 1982, serious eleventh hour good faith negotiations by both sides in February and March of this year suddenly resulted in the proposed settlement, which will not be final until a hearing has been held and the settlement has been approved by the United States District Court for the District of Rhode Island.

Although this marks the first time any insurance company will pay out a substantial sum of money to its insureds because of alleged antitrust violations, the real significance of the case is not the amount of the settlement, but the consumer-oriented rewriting of federal antitrust law by virtue of the landmark Supreme Court decision, reversing forever thirty-three years of previous interpretation favorable to the mammoth insurance industry.

GENERAL PRACTITIONER WILL SELL PRACTICE

Because of retirement on June 30, 1982, a member is interested to sell his general practice, which is well located on Hope Street in Providence, near The Miriam Hospital. Also available for sale are examining tables, treatment stands, and a surgical instrument stand, all solid walnut, about 40 years old. If interested, phone (401) 751-1214.

RIMS 171st ANNUAL ASSEMBLY ... June 2, 1982
Sheraton-Islander Inn, Newport, Rhode Island

11:00 am

Press Conference with William Y. Rial MD, President, American Medical Association.

12:15 pm

Luncheon with guest speaker, William Y. Rial MD.

2:00 pm

"Oncology Update-1982: Current Therapy," moderated by Frank J. Cummings, MD.

Neoplasams of the ...

Skin
Head and Neck
Lung
Gastrointestinal Tract
Gynecologic Tract
Genitourinary Tract
Bone and Soft Tissues
Breast

Presentor

Charles J. McDonald MD
Leonard J. Triedman MD
Ellen N. Spremulli MD
Louis A. Leone MD
Henry C. McDuff MD
Naeem M. Siddiqi MD
Melvin Tefft MD
Frank J. Cummings MD

Neoplasams of Blood ...

Acute Leukemias
Chronic Leukemias
Malignant Lymphomas
Plasma Cell Disorders
Pediatric Tumors

Michael C. Wiemann MD
Mario G. Baldini MD
Arvin S. Glicksman MD
Zbigniew A. Zawadski MD
Edwin N. Forman MD

New Concepts

Paul Calabresi MD

4:00 pm

Business Meeting with Charles E. Millard MD, presiding; Installation of Officers, 1982-1983; Presidential Address; Introduction of Guests.

5:00 pm

41st Charles V. Chapin Oration. "The Practicing Physician and the Public Health" by Howard H. Hiatt MD, Dean of the Harvard School of Public Health and Professor of Medicine, Harvard Medical School.

6:30 pm

Cocktail Hour

7:30 pm

Dinner-Dance with greetings from William Y. Rial MD, President, AMA; Chapin medal presentation to Howard H. Hiatt MD; presentation of the "Dr. Charles L. Hill Award for Distinguished Service to the Rhode Island Medical Society"; presentation of donation to Brown University Program in Medicine by women's auxillary representative of the AMA-ERF; presentation of certificates to recipients of RIMS Science Fair Awards.

BECAUSE OF CHEMOTHERAPY KAREN ANDERSON IS A STATISTIC.

THE KIND OF STATISTIC WE LIKE TO BRAG ABOUT.



When Karen was only 18 years old, her doctor discovered she had a deadly form of leukemia. Facing incredible odds, a survival rate of only 3%, Karen spent the next three years in intensive chemotherapy.

Not only was her life at stake, but if she did survive, there were serious questions as to whether she'd be able to have children.

Now, eight years and two sons later, you'd never suspect that this vigorous young mother had battled a disease that kills more than 15,000 Americans every year.

Karen, Brian and Erik are living proof that we're gaining in the fight against cancer. It's a fight we can't afford to lose. It's your donations that help us continue the research, education and rehabilitation programs that will give us more statistics like Karen Anderson. The kind of statistics we can all be proud of.

**SHARE THE
COST OF LIVING**

Give to the American Cancer Society.



Oncology Update — 1982:

Current Therapy

Moderator: Frank J. Cummings, MD
Chairman, Cancer Committee, Rhode Island Medical Society

will be held **June 2, 1982 at 2:00 PM**
at the **Sheraton-Islander Inn, Newport, Rhode Island**
the scientific program of the Rhode Island Medical Society 171st Annual Meeting

Neoplasms of the . . .

Skin
Head and Neck
Lung
Gastrointestinal Tract
Gynecologic Tract
Genitourinary Tract
Bone and Soft Tissues
Breast

Neoplasms of Blood . . .

Acute Leukemias
Chronic Leukemias
Malignant Lymphomas
Plasma Cell Disorders
Pediatric Tumors

New Concepts

Open Discussion and Questions

Presentor

Charles J. McDonald, MD
Leonard J. Triedman, MD
Ellen N. Spremulli, MD
Louis A. Leone, MD
Henry C. McDuff, MD
Naeem M. Siddiqi, MD
Melvin Tefft, MD
Frank J. Cummings, MD

Michael C. Wiemann, MD
Mario G. Baldini, MD
Arvin S. Glicksman, MD
Zbigniew A. Zawadski, MD
Edwin N. Forman, MD

Paul Calabresi, MD

As an organization accredited for continuing medical education, the Rhode Island Medical Society certifies that this offering meets the criteria for 1½ credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

Supported in part by grants from Bristol Laboratories, Mead Johnson & Co., Hoffmann-La Roche Inc., Adria Laboratories Inc., and Merck Sharp & Dohme.

First Class First Aid

In
your
office

In
their
homes

Recommend

NEOSPORIN® Ointment (POLYMYXIN B-BACITRACIN-NEOMYCIN)

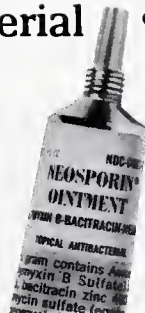
- Broad-spectrum antibacterial
- Handy applicator tip

DESCRIPTION: Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs, in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically* (as an adjunct to systemic therapy when indicated), for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neo-



mycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Motrin[®]

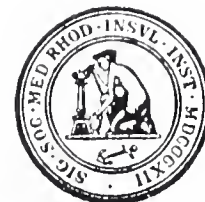
ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn



The Public Is Responsible for High Health Care Costs

A major factor in the escalation of health care costs has been the cost of hospitalization. To control hospital costs it must be assured first of all that every patient occupying a hospital bed requires that level of care for every day that he or she is in the hospital. The hospital bed is a precious community asset, and must be used with the utmost restraint and realism.* A second factor in hospital costs is the proliferation of expensive technology and ancillary services. Much greater and more sophisticated surveillance of ancillary services than has been evident in the past is essential.

Even more important, however, than these measures, which are largely the responsibility of providers and third parties, is the contribution which the patient himself can make. This effort lies largely in the realm of redirection of lifestyle. Accomplishment of this goal requires a major effort in education of the public. The abuses which quickly come to mind are smoking, abuse of alcohol and drugs, which is a major contributor to accidents of all sorts, and neglect of seat belts.

In the effort to inform patients of their responsibilities, Rhode Island physicians should emulate Dr. Charles V. Chapin, a great doctor and also one of the most famous of all public health officials. Dr. Chapin recognized a culprit, namely infectious disease, which was producing excessive morbidity and mortality. Despite fierce opposition, public resentment, and the apathy of many in government, he repeatedly promoted his methods to overcome the culprit and he finally won.

Today's culprits were identified by Dr. Daniel T. Cloud, President of the American Medical Association, when he noted that more than half of the \$247 billion spent on health care in 1980 can be accounted for by illnesses and accidents caused by improper lifestyles, which include *smoking, abuse of alcohol and drugs, and neglect of seat belts.*



Charles E. Millard, MD

Smoking

- Heart disease, the leading cause of death in Rhode Island, accounts for 4,000 or 40 per cent of annual deaths. About 30 per cent of heart disease cases are related to smoking.

- Cancer, the second leading cause of death in Rhode Island, accounts for more than 2,000 or 20 per cent of our annual deaths. Lung cancer is the most common type of cancer mortality, and an estimated 90 per cent of lung cancer deaths are related to smoking.

- Smoking costs Rhode Islanders about \$160 million per year, approximately \$100 million in lost earnings and \$60 million in medical care costs.

- It is estimated that 15 per cent of hospital admissions are related to smoking.

Alcohol

- Cirrhosis of the liver is the eighth leading cause of death in Rhode Island.

- Alcohol is associated with 50 per cent of Rhode Island's auto driver fatalities, 40 per cent of our homicides, about 40 per cent of our suicides, and 40 per cent of our home, occupational, and passenger/pedestrian automobile deaths.

* In 1946, Dr. Bluestone said we should "utilize the hospital bed carefully" and "set up criteria as to what constitutes a legitimate hospital patient." Cherkasky M. *Colloquium* 1(2):6. The goal is not yet accomplished.

- Recently it has been demonstrated that alcohol abuse costs Rhode Island over \$280 million dollars per year, approximately \$100 million in medical care costs and \$180 million in indirect costs such as lost production. Alcoholic Rhode Islanders number 20,000 to 60,000, and many more abuse this drug from time to time.

- More than 25 per cent of hospital admissions are related to alcohol abuse.

Seat Belts

- The fourth leading cause of death in Rhode Island is accidents, of which 40 per cent are caused by auto incidents.

- Fewer than 20 per cent of Rhode Islanders utilize their seat belts.

How To Reduce the Abuses

In combating the smoking culprit, we must bring pressure to bear on the federal government to remove the subsidy to tobacco farmers. The federal government's actions are hypocritical, even schizophrenic in this regard. On the one hand, it publishes data concerning the harmful effects of tobacco, and on the other it subsidizes the tobacco industry's growth. It is argued that discontinuance of support of the tobacco industry would produce unemployment, yet the costs of this unemployment certainly would be far less than the costs of smoking.

Also, the government should enact legislation prohibiting commercial advertising of products detrimental to citizens' health. Commercial advertising on billboards, in newspapers, in magazines, and on television, continually telling our youth that smoking is a good and natural thing to do by beautiful people, must be stopped.

Recently it was reported that expenditures for cigarette advertising hit the \$1 billion mark for the first time in 1979, and that more cigarettes were sold in that year than ever before. The media publish articles critical of health care providers and the costs of health care, yet continue to be supported by cigarette advertising. As the World Health Organization recommended in 1979, all forms of tobacco advertising should be banned from the mass media.

Stringent measures also are needed to combat

the alcoholism culprit. Present laws relating to alcohol abuse should be more strictly enforced, and several more proposed laws should be enacted immediately. For example, a proposed regulation which would require hospital admissions resulting from alcohol abuse to be reported to the health department is a step in the right direction, and we should give it our support. The health department would then be able to inform the public adequately of the serious health consequences of alcohol abuse. Promotion of alcoholic beverages in the mass media should also be banned.

The culprit of neglect of seat belts will only be overcome by mandating their use. It has been shown that fewer than 20 per cent of Rhode Islanders wear their seat belts. When an automobile comes to a sudden stop, passengers in the vehicle who are without seat belts become, in effect, human projectiles in motion to injury, probably disability, or even death. Universal use of seat belts would cut the number of highway deaths in half over a relatively short period of time. The mandatory child restraint law in Rhode Island is already saving young lives. Another alternative would be to require manufacturers of automobiles to install passive restraints in all vehicles sold in the United States.

We need to remind ourselves and OUR PATIENTS continually that cigarettes and alcohol are deadly. We should support health education in all of our schools and public health education via the mass media. Governments should raise the taxes on tobacco and alcohol as a deterrent to tobacco use and alcohol abuse, and to provide revenue for expanded school health education and public health education.

If physicians are genuinely interested in reducing costs of health care — we can do it — by supporting appropriate laws and regulations, by setting an example, and by encouraging OUR PATIENTS to improve patterns of living.

The author acknowledges with appreciation the contributions toward preparation of this article received from William J. Waters, PhD, Assistant Director-Health Policy, Rhode Island Department of Health, Providence, Rhode Island.

Paperless Claims Come to Rhode Island

Blue Shield of Rhode Island is testing paperless physician billing in a pilot program. The experiment, to last three months, is being carried out by Blue Shield in cooperation with a busy private radiology practice in Providence. An IBM computer terminal has been installed in the radiologists' office. Information fed into the physicians' terminal by office personnel flows directly into the Blue Shield computer through ordinary telephone lines. Thus, efficiency is enhanced and much paperwork is eliminated. Radiology was selected for the trial since radiology claims are relatively simple and uncomplicated.

The system has been used by other plans on a limited scale with some success. It has been in operation in Rhode Island for only a matter of

weeks, but has proved to be popular with the office staff and promising for Blue Shield. From the time the information is recorded in the office terminal until the check is in the mail, it has been untouched by human hands. A trial with a Rhode Island hospital is also in prospect in the near future. The experiment will be evaluated at the end of the trial.

It appears likely that paperless claims are just around the corner for Rhode Island. Perhaps one day soon the doctor will bill by computer and his bank account will be credited with the reimbursement, with no human hand intervening.

Seebert J. Goldowsky, MD

Third Generation Cephalosporins

Among the most widely used of all antibiotics, the cephalosporins account for some 35 per cent of all antibiotics used worldwide with annual sales of nearly \$1 billion. They are relatively free of side-effects and have a broad clinical spectrum for both Gram-positive and Gram-negative organisms.

The beta-lactam ring is the link between the penicillins and the cephalosporins. The latter were developed as a result of efforts to broaden the spectrum of activity and to develop resistance to bacterial beta-lactamases.

The first generation of cephalosporins appeared in 1964 with the introduction of cephalin. Since then the molecular structure has been further modified to increase effectiveness and to combat resistance. The new drugs constituted the second generation of cephalosporins. Recently a third generation of cephalosporins has been introduced. Only two preparations, moxalactam and cefotaxime, are currently available. Several additional members of the class have FDA ap-

plications pending or are in various stages of development and testing. The third generation drugs are expected to be particularly useful where there is a high incidence of resistant Gram-negative organisms. The new cephalosporins, however, are less effective against Gram-positive bacteria than are the older preparations, which are still preferred for these infections.

Moxalactam has a high degree of stability in the presence of beta lactamases, both penicillinases and cephalosporinases. Clinical tests also indicate a high margin of safety with respect to toxic or allergic reactions. It is active against a wide range of Gram-negative organisms, including many that are resistant to other agents.

Moxalactam is reputed to have five important properties: 1. a high level of antimicrobial activity, 2. effectiveness against a broad spectrum of aerobic and anaerobic organisms, 3. stability against bacteria and cells that destroy other beta-lactam drugs, 4. good penetration into body fluids and tissues, and into remote sites of infec-

tion, and 5. a high margin of safety respecting toxic and allergic reactions.

In one study peritoneal concentrations of moxalactam twice those of other cephalosporins and penicillins were attained. It also has a remarkable ability to penetrate the cerebrospinal fluid and attack Gram-negative bacteria. Because of its resistance to many beta-lactamases, moxalactam is effective against *Pseudomonas*, *Serratia*, and *Enterobacter* for which other available antibiotics are ineffective. Anaerobic infections, particularly those with *Bacteroides fragilis*, have been successfully treated with this antibiotic. Other studies have shown striking results with Gram-negative meningitis, Gram-negative enterococci, *Haemophilus influenzae*, *E Coli*, and *Klebsiella*.

Certain caveats are in order. One day of treatment with moxalactam has been quoted as costing \$146.45, or almost \$1500 for a ten-day course. Therefore, it is imperative to use less expensive antibiotics when they appear by sensitivity tests to be effective. It is also predictable, most authorities agree, that indiscriminate use will almost inevitably result in the emergence of bacterial resistance. This unique group of drugs should be kept strictly in reserve to be utilized only in cases of dire demonstrated need.

The struggle of science against infection goes on unabated, with a new encouraging chapter about to be unfolded.

Seebert J. Goldowsky, MD

CT Scanning Turnabout

The zeal with which health planners initially sought to limit the proliferation of CT scanners can only be compared with the enthusiasm with which their use is now spreading. If our recollection is correct, two scanners were then considered adequate for the whole state of Rhode Island. There are now four in operation, with at least two applications pending, and, additionally, a second scanner at a large hospital has been given a high priority.

See also pages 189-190.

A consensus panel of the National Institutes of Health eight years after the introduction of CT scanning has stated that this is the tool of choice in primary brain diagnosis and has transformed the diagnosis and much of the management of structural disease of the brain and surrounding tissue. The increased costs of diagnosis by scanning of the brain, said the panel, have been more than offset by the "reduction in costs resulting from discontinued procedures and the elimination of equipment to carry them out." As a final blast regarding the nationwide distribution of

scanners, the panel has proclaimed: "We believe there have not been too many scanners, but too few."

As a further irony the United States Department of Health and Human Services will soon rescind the health planning guidelines on the supply and distribution of CT Scanners. It will propose rescission of the standard that prevents the addition of new scanners in a health service area unless all existing scanners are operating above an established rate measured in medically necessary patient procedures per year. Thus we have come full circle.

The emergence of sophisticated nuclear magnetic resonance (NMR) scanning in an estimated five years, with equipment selling for \$600,000 to \$2 million, may as a final irony either render the older equipment obsolete, as predicted by *The Wall Street Journal*, or in fact require duplication. As many as 12 prototype units may be in the hands of research centers by the end of the year. In view of our experience with CT scanning, the controversies which will inevitably surround the introduction of this new costly technology will be interesting to behold.

Seebert J. Goldowsky, MD

REPORT OF THE HOUSE OF DELEGATES

Meeting January 20, 1982

A **regular meeting** of the House of Delegates of the Rhode Island Medical Society was held on Wednesday, January 20, 1982 in the auditorium.

The meeting was called to order by the Vice Speaker of the House, Dr. Charles P. Shoemaker, Jr., MD at 2:05 p.m. Members present were:

Officers: Charles E. Millard, MD, President; David R. Hallmann, MD, Secretary; Erminio Cardi, MD, Treasurer.

Delegates:

Bristol County Medical Society: Frank Capizzo, MD.

Kent County Medical Society: John C. Osenkowski, Fred T. Perry, MDs.

Newport County Medical Society: Charles P. Shoemaker, Jr., MD.

Pawtucket District Medical Society: David Carter, Robert E. Curran, Mary-Elaine Rohr, Richard Wong, MDs.

Providence Medical Association: Erminio Cardi, Francis P. Conklin, John J. Coughlin, Richard D. Frary, Joseph R. Gaeta, Herbert F. Hager, Anthony F. Merlino, Daniel Moore, Jr., Kenneth B. Nanian, Peter T. Nigri, Jay M. Orson, Elliot Perlman, Herbert Rakatansky, Robert W. Riemer, Guy A. Settipane, Albert F. Tetreault, Louis Vito, Jr., MDs.

Washington County Medical Society: Erwin Siegmund, MD.

Woonsocket District Medical Society: Orazio Basile, John C. Baxter, Paul Hessler, MDs.

Specialty Society Representatives: Henry F. Ize-man, MD, Rhode Island Society of Internal Medicine; John J. Coughlin, MD, Rhode Island Section, American College of Obstetricians and Gynecologists; Anthony Merlino, MD, Rhode Island Orthopedic Society; Daniel J. Hanson, MD, Rhode Island Radiological Society; Alfred A. Arcand, MD, Rhode Island Chapter, American Academy of Family Physicians; Guy A. Settipane, MD, Rhode Island Society of Allergy; William Wexler, MD, Rhode Island Otolaryngological Society.

District Society Presidents: Richard G. Bertini, MD (Pawtucket); Frank G. Deluca, MD (Providence).

Vice Speaker of the House: Charles P. Shoemaker, Jr., MD.

Members Ex Officio: Seebert J. Goldowsky, MD, Editor-in-Chief, *Rhode Island Medical Journal*; John J. Cunningham, MD, Delegate, American Medical Association; Herbert F. Hager, MD, Alternate Delegate, American Medical Association.

Also present were: Joseph E. Caruolo, MD, Past President; J. Robert Bowen, MD; Robert Lev, MD; Vahey Pahigian, MD; Paul T. Welch, MD.

Staff present were: Norman A. Baxter, PhD, Executive Director; Karen J. Challberg, Assistant Executive Director.

Members absent were:

Officers: William F. Varr, Jr., MD, Vice President; Melvin D. Hoffman, MD, President-Elect.

Delegates:

Kent County Medical Society: William J. O'Rourke, Klaus F. Haas, Vincent R. Iacono, Thomas A. Vest, MDs.

Newport County Medical Society: Thomas Cahill, MD (excused); Edwin Singsen, MD.

Pawtucket District Medical Society: Bruno Borenstein, Benjamin Healey, MDs.

Providence Medical Association: Charles J. Ashworth, Jr. (excused); Michael S. Barrett, Andrew S. Blazer (excused); Thomas G. Breslin (excused); Joseph J. Callaghan, John E. Farley, Jr. (excused); Ronald M. Gilman, Richard P. Iacobucci, Harry M. Iannotti (excused); Robert A. Indeglia, William S. Klutz, Mary D. Lekas, (excused); Lynn C. Lowe, Betty B. Mathieu (excused); Richard T. McDermott, Julius C. Migliori, Raymon D. Riley, Barbara H. Roberts, Rajnikant K. Shah, Louis V. Sorrentino, Hugo Taussig, Joseph R. Tucci, Raymond W. Waggoner, Jr. (excused), MDs.

Specialty Society Representatives: John E. Farley, Jr., MD, Rhode Island Chapter, American Academy of Pediatrics; Lewis A. Johnson, MD, Rhode Island Society of Pathologists, Inc.; Louis Hafken, MD, Rhode Island District Branch, American Psychiatric Association; Augustine M. McNamee, MD, Rhode Island Society of Anesthesiologists; David Kaplan, MD, Rhode Island

Emergency Room Physicians; Arthur B. Kern, MD, Rhode Island Dermatological Society; Samuel V. Just, MD, Rhode Island Ophthalmological Society; Charles L. Hopper, MD, Providence Surgical Society; Paul J. M. Healey, MD, Rhode Island Chapter, American College of Surgeons; Walter Cotter, MD, Rhode Island Society of Neurosurgery; Ian B. Tyson, MD, Rhode Island Society of Nuclear Medicine; Robert Baute, MD, Rhode Island Thoracic and Cardiovascular Society; Thomas F. Morgan, MD, Rhode Island Neurological Society.

District Society Presidents: Thomas M. Drew, MD (Bristol); Edward Asprinio, MD (Kent); Peter D. T. Clarisse, MD (Newport); Joseph J. O'Neill, MD (Washington); Roger J. Fontaine, MD (Woonsocket).

Speaker of the House: Leonard S. Staudinger, MD.

Immediate Past President: Peter L. Mahieu, Jr., MD (excused).

Members Ex Officio: Joseph E. Cannon, MD, Director, Rhode Island Department of Health; William J. MacDonald, MD, Chairman of the Board, Blue Shield of Rhode Island.

Approval of Minutes

It was noted that in the minutes of the meeting of September 23, 1981 the absence of Mary-Elaine Rohr, MD, Delegate from the Pawtucket District Medical Society, was listed incorrectly as an unexcused absence. Her absence was excused.

Action: A motion was made, seconded and voted that the minutes of the meeting of September 23, 1981 be approved and placed on record as corrected.

Report of the Secretary

There was discussion of item (6) Insurance and it was suggested that the endorsement of an excess malpractice insurance package by the Rhode Island Medical Society may influence insurance requirements for medical staff privileges in hospitals.

Action: A motion was made, seconded, and approved to refer the recommendation of the Insurance Committee for Rhode Island Medical Society endorsement of the excess malpractice insurance package of Frank B. Hall and Company of Rhode Island back to the Insurance Committee for further information.

Action: A motion was made, seconded, and approved that the Report of the Council be accepted and placed on file.

Report of the Treasurer

Dr. Cardi stated the expenses for the first eleven months of 1981 were higher than income, but that changes in printing arrangements for the *Rhode Island Medical Journal* already had been effected by Dr. Baxter beginning with the January 1982 issue, and that savings also would be realized by the Library during 1982, because of staff changes and the decision to charge a fee for reprints to all users who are not members of the Rhode Island Medical Society.

Action: A motion was made, seconded, and approved that the Report of the Treasurer be accepted and placed on file.

Recommendation from the Council

Action: A motion was made, seconded, and approved to accept the recommendation from the Council that the House meet next on March 24, 1982 with adjournment in time for Delegates to attend the Annual Meeting of the Blue Shield Corporation at 5:00 p.m.

Report of the Trustees of the Benevolence Fund

A request was made by Dr. Caruolo to know the number of contributions represented by the receipts to the Benevolence Fund.

Action: A motion was made, seconded, and approved that the Report of the Trustees of the Benevolence Fund be accepted and placed on file.

Report of the Delegates to the American Medical Association

In addition to the handbook report, Dr. Cunningham informed the House that the AMA is encouraging state medical societies to become knowledgeable of the process by which federal block grants will be handled in their individual states.

Committee Reports

(1) *Committee to Review the Board of Medical Review.* The report of the Committee to Review the Board of Medical Review was considered as a Rhode Island Medical Society official statement on the Board of Medical Review. Dr. Hager, Parliamentarian, noted that by an action to approve the report its conclusions would become Society policy.

Action: An action was made, seconded, and

voted to approve the report of the Committee to Review the Board of Medical Review.

(2) *Committee on Medical Aspects of Sports*. The report of the Committee on Medical Aspects of Sports was accepted to be placed on file.

(3) *Committee on Standards and Credentials*. It was agreed to recommend that the contents of the report of the Committee on Standards and Credentials be published in a near upcoming issue of the *Rhode Island Medical Journal*. The report was accepted to be placed on file.

(4) *Mental Health Committee*. The report of the Mental Health Committee was accepted to be placed on file.

(5) *Search Committee for Director of RIMS Brokerage Corporation (oral)*. Dr. Vito reported that the committee will proceed in the search with which it has been charged as soon as more information is obtained on the legalities surrounding the corporation and the legal costs which may be incurred in activating it. The report was accepted.

(6) *Impaired Physicians Committee (oral)*. Dr. Rakatansky reported that the committee's work has been successful, but that it has been having difficulty in obtaining referrals. It was agreed that the *Rhode Island Medical Journal* should publicize the availability of the committee's services, with emphasis on the fact that the committee maintains complete confidentiality of its activities. The report and recommendation were accepted.

(7) *Ad Hoc Committee on Ambulatory Surgery Policy*. Dr. Bowen explained his committee's work to date and stressed that the committee's conclusions would be recommendations, not mandates. The report was accepted to be filed.

(8) *Committee on Social Welfare*. The report of the Social Welfare Committee was accepted to be placed on file.

Resolutions

(1) Dr. Tetreault presented the following resolution:

"Whereas, there is no shortage of physicians in the State of Rhode Island; and

Whereas, the level of clinical medicine rendered by physicians directly to their patients is always superior to any diagnosis and prescribed treatments delegated to or performed by non-physicians; therefore

1. Be it resolved that the practice of Medicine in Rhode Island by non-physicians outside of the hospital setting is not in the best interest

of patients and should not be justified except under life threatening circumstances; and

2. Be it further resolved that the Rhode Island Medical Society urgently pursue all legal channels to immediately curtail existing practices and those extensions of privileges conferred on licensed non-physicians that sanction future abuses."

Action: A motion was made, seconded and approved to refer the above resolution to the Physicians' Assistants Committee and then to the Council.

(2) Dr. Welch presented the resolution:

"Be it resolved that the Rhode Island Medical Society supports the Determination of Death Bill reviewed by its Public Laws Committee to be introduced in the 1982 General Assembly."

It was agreed that the Determination of Death Bill should be explained in an upcoming issue of the *Rhode Island Medical Journal*.

Action: An action was made, seconded, and voted to approve the above resolution.

(3) Dr. Arcand presented the resolution:

"Be it resolved that the House of Delegates should enter into negotiations with Blue Cross/Blue Shield to make available a U100 Plan for members of the Rhode Island Medical Society."

Action: An action was made, seconded, and voted to approve the above resolution.

(4) Dr. Perry presented the resolution:

"Be it resolved that the Executive Director of the Rhode Island Medical Society be charged with the responsibility to contain actual expenditures of the Society within annually budgeted amounts; and further that no officer, committee, or director designee be authorized to spend beyond the appropriated (budgeted) amounts without the approval of the House of Delegates by majority vote.

A motion to approve the above resolution was defeated. (There were 3 votes in the affirmative.)

(5) Dr. Coughlin presented the resolution:

"Be it resolved that the Rhode Island Medical Society contact the Department of Health and Human Services to determine whether RIPSRO is following its obligations by conduct-

ing only retrospective reviews and not doing concurrent reviews.”

Action: A motion was made, seconded and voted to approve the above resolution with the amendment that the President shall appoint a committee to carry out the charge.

Miscellaneous Business

(1) *Action:* A motion was made, seconded and voted to appoint Maurice Albala, MD to the Publications Committee. (There presently is one vacancy on the committee due to a resignation.)

(2) Dr. Wexler presented a brief report from the Rhode Island Otolaryngological Society on the suit and countersuit between that Society and

Blue Cross and Blue Shield of Rhode Island. His report was followed by open discussion of physicians' relationships with the Blues, touching on the question of whether the Rhode Island Medical Society should continue to be involved in management of Blue Shield by its delegates to the Blue Shield Board of Directors; and on issues relating to participation with Blue Shield plans.

Adjournment

There being no further business, the meeting was adjourned at 4:15 p.m.

Respectfully submitted,
David R. Hallmann, MD
Secretary

Computerized Tomographic Diagnosis of Subarachnoid Hemorrhage and its Complications

Jeffrey Austerlitz, MD; L. R. Jenkyn, MD

The diagnosis of ruptured aneurysm with SAH rests on the typical history of sudden, excruciating headache often accompanied by variable degrees of stiff neck, photophobia, or focal neurologic deficits. Serial aliquots of cerebrospinal fluid (CSF) at lumbar puncture are constantly bloody by gross or microscopic evaluation.* Angiography may define the bleeding source (aneurysm, AVM, neoplasm) with a view toward later surgical correction. The diagnosis may, however, be difficult. Occasionally, subarachnoid hemorrhage may present clinically as an ischemic or embolic stroke or as sudden or subacute diffuse cerebral dysfunction without headache. Conversely, hemorrhagic infarction may present with pain and bloody CSF. Additionally, intracranial hypertension often coexists with SAH, threatening fatal transtentorial herniation with or without lateralizing signs. Lumbar puncture conceivably may augment pressure differences between intracranial compartments and thus precipitate herniation.¹ For this reason, lumbar puncture may be deferred and be made unavailable for diagnostic purposes. Finally, invasive angiography in the best hands may not demonstrate a source of hemorrhage in 10-20 per cent of cases.² On the other hand, angiography may demonstrate more than one aneurysm without identifying the specific bleeding lesion.³ In some cases, only aneurysms distant from the site of bleeding (demonstrated by mass effect) are seen.⁴

Non-invasive computerized tomography (CT) readily demonstrates the presence of blood in the CSF of cooperative patients (Table 1). It can be seen that CT obtained within 48 hours will be positive in at least 83 per cent of patients with SAH. Furthermore, the distribution of blood on CT may indicate the abnormal vessel. Brismar⁷ found in 34 cases that angiography of the carotid ipsilateral to the largest blood density on CT

demonstrated lateral aneurysms in 28 and midline aneurysms in 5, while being performed in the wrong vessel in only one case. In 10 (19 per cent) of 53 aneurysmal hemorrhages, CT was not helpful in determining the bleeding site: six midline aneurysms (anterior or posterior communicating, or basilar artery) demonstrated either a symmetric distribution of blood or normal findings on CT scan. One patient with a posterior communicating artery aneurysm gave evidence of more blood on the side *opposite* the lesion. Subarachnoid blood on CT scan is rare more than one week after the initial hemorrhage (Table 1). Therefore, sudden alteration in mental status or neurologic examination with subarachnoid blood on CT scan after this time is a reliable indicator of rebleeding.

Unnecessary angiography may be obviated by pre-angiographic recognition of unsuspected pathology. Hayward and O'Reilly⁸ reviewed 100 consecutive cases of suspected nontraumatic intracerebral hemorrhage. From CT alone (without knowledge of age, history or clinical findings) diagnoses of 52 aneurysms, 38 hypertensive hemorrhages, 8 arteriovenous malformations, and 2 tumors, were correct with 90 per cent accuracy. Only one aneurysm was misdiagnosed. Brismar⁷ was able to identify tumor, trauma, or primary cerebral hemorrhage in 34 (23 per cent) of his 149 patients.

CT is also useful in identifying a major complication of SAH: communicating hydrocephalus. Vasilouthis and Richardson⁹ observed ventricular dilatation in 17 (11 per cent) of 162 subjects referred within the first week after presumed subarachnoid hemorrhage. Of patients referred 1-2 weeks post-SAH, 9 (19 per cent) of 48 showed ventricular dilatation. Of 23 surviving patients with ventricular dilatation at the time of initial scanning, 8 (35 per cent) required shunting, most often following surgical repair of the aneurysm. Five additional patients required

* Rare exceptions occur.

Table 1. Computerized Tomographic Demonstration of Intracranial Bleeding in Patients with Suspected Subarachnoid Hemorrhage

Author	PERCENT POSITIVE CT SCAN (NUMBER)			
	Within 24 Hours	Within 48 Hours	Between 48 Hours and 5 Days	After 5 Days
* Liliequist, Lindqvist and Valdimarsson, 1977 (4)	—	65 (13/20)	42 (5/12)	0 (0/11)
† Modesti and Binet, 1978 (5)	68 (13/19)	—	—	—
‡ Moran et al, 1978 (6)	—	87 (NA)	75 (NA)	29 (NA)
§ Brismar, 1979 (7)	85 (81/95)	83 (94/113)	80 (16/20)	—
# Liliequist and Lindqvist, 1980 (3)	—	84 (27/32)	55 (6/11)	11 (1/9)
TOTAL, excluding (4)	83 (94/114)	83 (121/145)	71 (22/31)	11 (1/9)

* No aneurysms demonstrated — contrast not routinely given.
† Aneurysm identified in 30% following contrast.
‡ 53 subjects total.
§ Includes subjects with intraventricular and/or intraparenchymal bleeding.
|| NA = Not Available.
Includes subjects from (4).

shunting for symptomatic progressive hydrocephalus confirmed by CT between 6 weeks and 3 months after the original hemorrhage.⁹

Preliminary study suggests that the extent of subarachnoid bleeding visualized on CT scan predicts the degree of delayed vasospasm identified by timely arteriography.¹⁰ More investigation is required to confirm this observation.

In summary, computerized tomography, if available, is the diagnostic procedure of choice for suspected subarachnoid hemorrhage. Performance of a CT scan within 48 hours of SAH can be expected to demonstrate the bleeding in 83 per cent of patients. In addition, it can distinguish between aneurysmal, traumatic, neoplastic, and primary intracerebral hemorrhage and may thereby obviate lumbar puncture and angiography in some patients. Angiography remains indicated for defining vascular anatomy and vasospasm prior to surgical intervention. In many instances, CT may also direct the angiographer to the involved vessel. Visualization of anterior and posterior cerebral circulations still remains necessary in view of the frequency of individuals with multiple aneurysms¹¹ and the current recommendations¹² for prophylactic clipping of aneurysms larger than 7 mm in diameter. In symptomatic patients, CT may reduce confusion when more than one potential bleeding source is

identified by angiography. Lastly, rebleeding and communicating hydrocephalus may be diagnosed by serial CT scans.

References

- 1 Plum F, Posner JB: Diagnosis of Stupor and Coma, ed 3. Philadelphia, FA Davis, 1981.
- 2 Van Gijn J, Van Dongen KJ: Computerized tomography in subarachnoid hemorrhage: difference between patients with and without an aneurysm on angiography. *Neurology (NY)* 30:538-539, 1980.
- 3 Liliequist B, Lindqvist M: Computed tomography in the evaluation of subarachnoid hemorrhage. *Acta Radiol (Diagn)* 21:327-331, 1980.
- 4 Liliequist B, Lindqvist M, Valdimarsson E: Computed tomography and subarachnoid hemorrhage. *Neuroradiology* 14:21-26, 1977.
- 5 Modesti LM, Binet EF: Value of computed tomography in the diagnosis and management of subarachnoid hemorrhage. *Neurosurgery* 3:151-156, 1978.
- 6 Moran CJ, Naidich TP, Gado MH, Holloman WG, Shalen PR: Leptomeningeal findings in CT of subarachnoid hemorrhage. *J Comput Assist Tomogr* 2:520-521, 1978.
- 7 Brismar J: Computed tomography as the primary radiologic procedure in acute subarachnoid hemorrhage. *Acta Radiol (Diagn)* 20:849-864, 1979.
- 8 Hayward RD, O'Reilly BVA: Computerized tomography and intracerebral hemorrhage. *Am Heart J* 93:126-127, 1977.
- 9 Vasilouthis J, Richardson AE: Ventricular dilatation and communicating hydrocephalus following spontaneous subarachnoid hemorrhage. *J Neurosurg* 51:341-351, 1979.
- 10 Davis JM, Davis KR, Crowell RM: Subarachnoid hemorrhage secondary to ruptured intracranial aneurysm: prognostic significance of cranial CT. *AJR* 134:711-715, 1980.
- 11 McKissock W, Richardson A, Walsh L: Multiple intracranial aneurysms. *Lancet* 1:623-626, 1964.
- 12 Ojemann RG: Management of the unruptured intracranial aneurysm. *N Engl J Med* 304:725-726, 1981.

STERRY BUILDING

5586 Post Road
East Greenwich, RI

(South of Goddard Park Exit)



NOW LEASING

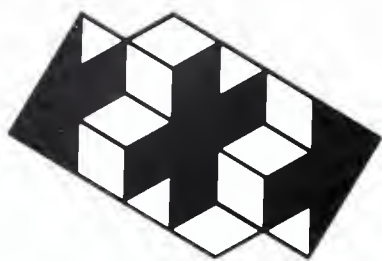
PRESTIGE OFFICE SUITES

CALL
OR
WRITE

943-4794 — 884-3110 after 5 P.M.

STERRY CORPORATION
1500 Phenix Avenue
Cranston, RI 02920

SPECIAL CONCESSIONS FOR EARLY TENANTS!



Blackstone Valley Surgicare

Easier for you, nicer for them.

- Same-Day Surgery facilities for general surgeons, gynecologists, plastic surgeons, ophthalmologists, oral surgeons, otolaryngologists, orthopedists
- Managed by physicians with the doctor in mind
- Open staff
- General anesthesia
- Block bookings
- Modern, pleasant environment
- Nursing staff exclusively oriented to the ambulatory surgical patient
- Easy access from Route 95; plenty of parking
- Full Blue Cross and commercial insurance coverage
- Accredited, National Society for Free Standing Ambulatory Surgical Care

Call 728-3800 for more information and bookings.

Blackstone Valley Surgicare, Inc.
333 School Street
Pawtucket, Rhode Island

Erythroblastosis in a First Born Infant

Clinical Pathological Conference

Peter S. Smith, MD
Don B. Singer, MD

The following is the clinical history of the subject of this conference: This baby weighed 2445 grams and was born after 35 weeks' gestation to a 19-year-old mother. This was the first pregnancy for the mother whose blood group was A, Rh negative. She had no history of illness during the pregnancy nor had she ever had a transfusion or a surgical procedure.

She was admitted to her community hospital 15 hours prior to delivery, in active labor. The membranes were artificially ruptured two hours before delivery. The infant was delivered with low forceps under spinal anesthesia. The fetal heart rate dropped just before delivery. Apgar scores were 3 at 1 minute, 4 at 5 minutes, and 4 at 10 minutes. The infant boy was intubated and placed in a ventilator.

This is one of a series of Clinical-Pathological Conferences sponsored by the Department of Pathology, Women and Infants Hospital, Providence, Rhode Island and the Section of Pathology, Brown University Program in Medicine.

Don B. Singer, MD, Department of Pathology, Women and Infants Hospital and Brown University, Providence, Rhode Island.

Peter S. Smith, MD, Departments of Pediatrics, Brown University, Providence, Rhode Island.

Initially, the heart rate was 90-100 per minute, respiratory rate 50 per minute, temperature 36.8°C. The baby was 46 cm long, had a head circumference of 32 cm, and was considered appropriate for gestational age. The skin was pale and cyanotic with apparent poor perfusion of the capillary bed. The auscultation of the chest showed no abnormality except for a gallop rhythm. The liver was enlarged into the right lower quadrant, and the spleen tip was palpable. The abdomen was distended. The extremities were edematous with ecchymoses in the skin, and pulses were thready. The infant had little respiratory effort and no spontaneous movement of extremities.

Initial laboratory data disclosed a blood group A, Rh positive and a strongly positive direct Coombs test. An exchange transfusion was undertaken with packed red cells because the hemoglobin was 9.5 gm/dl and hematocrit was 27 vol per cent. There were 210 nucleated red blood cells per 100 white blood cells, and the total white count (including nucleated red blood cells) was 47,000 per cu mm. Packed red cells were used for the exchange, and these raised the hematocrit to 41 vol per cent.

Urinalysis showed a large amount of blood, strong bilirubin reaction, trace glucose, and 1+ protein. The serum bilirubin was 2.8 mg/dl, 0.5 mg/dl direct reacting fraction. The serum sodium was 137 mEq/L, potassium 6.6 mEq/L, chloride 92 mEq/L, CO₂ 6 mms/L. Cultures of blood grew no organisms. A chest x-ray showed cardiomegaly and clear lung fields. Apparent enlargement of

both the liver and the spleen were noted on abdominal x-ray.

Measurement of blood gases while the infant was breathing 100 per cent oxygen were as follows: pH 6.84-7.07; pO_2 54-73 torr; pCO_2 16-25 torr; base excess -23 to -31.

At two hours of age, the infant's heart rate dropped to 80-100 per minute. He received a partial exchange of 70 ml of packed red cells, which raised the hematocrit from 22 to 41 vol per cent. The transfusion caused the heart rate to return to 120-140 per minute. At the completion of another 350 ml of exchanged blood, the infant's heart rate fell, and he became cyanotic with an increase in abdominal girth. Blood cultures were drawn, and ampicillin and gentamycin were begun. The infant was resuscitated and was then transported to the Special Care Nursery. An umbilical artery catheter was put in place, as well as an umbilical venous catheter with the purpose of recording central venous pressure. The blood pressure remained 58-62 torr by palpation. He then began to ooze blood from puncture sites, and the endotracheal tube had bloody mucus upon suction. Paracentesis revealed bloody fluid with a hematocrit of 12 vol per cent. Blood gases were obtained, and 5 mEq sodium bicarbonate, packed red cells, and platelets were given. The blood pressure then fell to around 25 torr, and the central venous pressure was 8 cm of water. The cardiac rhythm became irregular. The infant died despite resuscitative efforts.

Discussion

Dr. Peter Smith:* The first-born infant of an Rh negative mother is practically never affected with erythroblastosis. Fetal blood cells of Rh positive type have the Rh antigen on the surface, and are capable of immunizing the mother if the dose is large enough. It takes a fair sized dose, and that's the reason that the first two or three babies don't succeed in immunizing the mother. After she has been minimally sensitized during the time of the first one or two deliveries (fetal to maternal hemorrhage), later pregnancies produce a recall phenomenon with large amounts of maternal antibody crossing back to the fetus. This is the classic explanation for fetal erythroblastosis or hydrops fetalis. It is usually only in the third and subsequent pregnancies that infants are affected;

and the greater the birth order, the more severe the clinical severity. This case is unusual at the outset because the mother is a primigravida with an affected infant due to Rh incompatibility. There are five hypotheses to explain this situation:

1) Leakage of sufficient blood to sensitize the mother in the second trimester of the first pregnancy may result in an affected first born. 2) A blood transfusion with Rh positive blood can also do this, apparently not applicable in this case. 3) A prior pregnancy or prior abortion of an Rh positive infant, unmentioned by the mother, can sensitize her. 4) The "grandmother theory" is attractive to some. According to this theory, the Rh positive grandmother who delivers an Rh negative baby may have leaked maternal blood into the fetal circulation, sensitizing the female baby, who, 20 or so years later, has a recall phenomenon with her first pregnancy. This has yet to be proved. 5) Finally, amniocentesis of an Rh negative mother may accidentally injure the placenta of the Rh positive infant, causing a fetomaternal transfusion and maternal sensitization.

If the mother and the fetus are compatible as to major blood group (A-B-O), then the likelihood of sensitization to Rh antigens from fetus to mother is increased. The reason is that in ABO incompatible blood transfusions from fetus to mother, isoantibodies in the mother quickly destroy the transfused fetal cells so that they don't have the chance to sensitize the mother. This may not be an entirely satisfactory explanation, since, while the red cells are destroyed, the remaining membranes, which contain the Rh antigen, could conceivably sensitize the mother anyway. Indeed, Vos demonstrated in an unselected series that the incidence of ABO incompatibility varied inversely with the maternal Rh titer at term.¹

In this case, we have evidence of a rapid delivery with a low Apgar score of 3. He was probably not breathing properly and had a reduced heart rate below 100 beats per minute. The baby was of proper length and was appropriate for gestational age with a birth weight of 2445 grams, but was premature. A gallop rhythm of the heart was heard, the liver and spleen were markedly enlarged, and edema and ecchymoses developed. There was little respiratory effort and practically no spontaneous breathing. How can we explain all of these features which seem to be present in addition to the erythroblastosis fetalis?

We know that hypoxia produces damage to multiple organs. In the heart, the chambers dilate, increasing the size of the heart, and resultant

* Associate, Division of Pediatric Hematology/Oncology, Rhode Island Hospital.

failure causes enlargement of the liver. Liver function is reduced. Detoxification of bilirubin doesn't proceed readily. The liver is also responsible for producing all coagulation factors except thromboplastin and Factor VIII (which are produced in the vascular endothelium). By measuring the prothrombin time, we have a good indicator of the hepatic factors: II, VII, IX and X. If they are reduced, one may assume liver damage. Hence, with significant hypoxia, the prothrombin time is prolonged. The brain also suffers significantly in hypoxia; the germinal matrix and subependymal areas are easily damaged. Apparently, this form of cerebral hemorrhage is unrelated to decreased clotting factors since prophylactic administration of clotting factors does not prevent it.²

The liver of any newborn infant is not as developed as the liver of the adult in terms of producing clotting factors. In fact, the younger the gestational age, the greater the changes noted in clotting factors with minimal liver damage. Since Factor VIII is produced throughout the body, it is usually normal if liver damage is the main cause of clotting difficulty. However, when Factor VIII is reduced, a consumption coagulopathy may be present with reduction in all the factors, particularly V and VIII, causing an increase in both the prothrombin time and the partial thromboplastin time.

If one has the means to measure Factor VIII and can demonstrate its reduction, this is one of the more specific tests for disseminated intravascular coagulation (DIC) in neonates. Most clinicians will be satisfied with a decreased platelet count, a prolongation of the PT and PTT, and an increase in fibrin degradation products to diagnose disseminated intravascular coagulopathy.

DIC is a complicated condition. The trigger incident is usually damage to tissues capable of liberating thromboplastin into the circulation. In shock, vessels rich in thromboplastin attract platelets which aggregate and consume clotting factors in order to form the definitive clot. Fibrinolysins work on this, and if clotting is extensive, as in DIC, fibrin degradation products (FDP) are markedly increased. These FDPs are a nasty by-product of the process since they interfere with platelet function, further impairing hemostasis. Their presence is a sign of "dying blood," and, when they are present, the cycle needs to be interrupted quickly or the patient may die as well.

In the present case, the Coombs test was strongly positive, and the red cells were coated

with Rh antibody. Coated cells cannot properly carry out their respiratory function. The partial exchange transfusion raised the hemoglobin from 9.5 to 12.9 gms/dl. The baby's clinical state improved, but the nucleated red cell mass was still high, an indication that the baby had severe disease. If CPD anticoagulant were used in the transfused blood, its pH may be quite low and aggravate the patient's acidosis that was probably present to begin with. Heparinized blood has a more normal pH and is the preferred blood for exchange transfusion.

Unexpectedly, the prothrombin time and partial thromboplastin time were both markedly prolonged after the exchange transfusion, and the platelet count dropped. This catastrophe cannot be explained by DIC or liver disease, since fresh whole blood should have improved all of these measurements. A sudden anemia resulted in inadequate oxygen delivery to the tissues, resulting in the negative base excess and metabolic acidosis. In other words, shock had developed, preparing the way for DIC and an acute hemorrhagic episode. The abdomen became distended, and abdominal taps produced a bloody fluid with a hematocrit of 12 vol per cent, indicating that a large amount of blood was present with ascitic fluid. We know that spontaneous rupture of the spleen can occur after exchange transfusion for hemolytic disease of the newborn.³ The probable mechanism is that the to and fro changes in blood volume during exchange tax the splenic capsule, which then ruptures. Perhaps we could see the x-ray films at this time for the help that they may offer.

Dr. Richard Frates:* This single chest film shows an umbilical artery catheter in place. This is important, because it demonstrates that the round ligament and umbilical vein are not in their usual position, but are displaced due to the massive enlargement of the liver and spleen. We see that the shadows of the liver and spleen are enlarged, as is the heart, but the lungs appear normal.

Doctor Smith: Placement of the catheter is important too, because if vigorously manipulated it can produce traumatic hemorrhage on its own. The x-ray studies are of some help, but they don't explain the hemorrhage. Sometimes such bleeding in the kidneys occurs, but we have no evidence of bloody urine in this case. Another site of massive bleeding may be the suprarenal glands, which results in shock and the elevated potassium

* Chief of Radiology, Women and Infants Hospital (WIH).

values noted in this case. There are, of course, other explanations for elevated potassium. One of these, renal failure, doesn't seem to be operating here.

Near the end of this baby's life, material removed from the endotracheal tube was bloody, the blood pressure dropped, and central venous pressure rose correspondingly. Resuscitative efforts were futile and the baby died. I believe I can conclude my discussion with a list of diagnoses:

1. Erythroblastosis with hydrops secondary to maternal-fetal Rh incompatibility.
2. Congestive heart failure due to damage secondary to cardiac hypoxia.
3. Hypoxic damage to the liver; reduction in clotting factors on that basis.
4. Massive extramedullary hematopoiesis in the liver and spleen.
5. Splenic rupture and abdominal hemorrhage (? following the exchange transfusion).

There probably was also intraventricular hemorrhage or intracranial hemorrhage of some sort. Since we have a bloody return in the endotracheal tube terminally, intra-alveolar hemorrhage in the lungs is present, and I will also postulate anoxic kidney damage.

Dr. William Oh:* Hydrops is usually severe in those with severe degrees of sensitization in utero. I would expect the bilirubin to be higher than it is in this case and that the amniotic fluid on spectrophotometric scanning would have fallen into high Zone II or Zone III. Was this done?

Dr. Marie Weinstein:† A bilirubin scan wasn't done because sensitization was not expected, since this was the mother's first pregnancy.

Dr. George W. Anderson:‡ For those of you not old enough to remember, it was a fairly common practice in obstetrics in the 40s and 50s to inject blood into the buttocks of the newborn. This was a measure used to prevent hemorrhagic disease of the newborn, but was discontinued in the early 50s. Such transfusions may have sensitized the Rh negative mother when she was a newborn.

Doctor Oh: In this case, acute fetal distress was superimposed on the Rh incompatibility. This is a crucial point in regard to the immediate care of the infant at delivery. There should have been treatment of the hypoxia and acidosis. An ex-

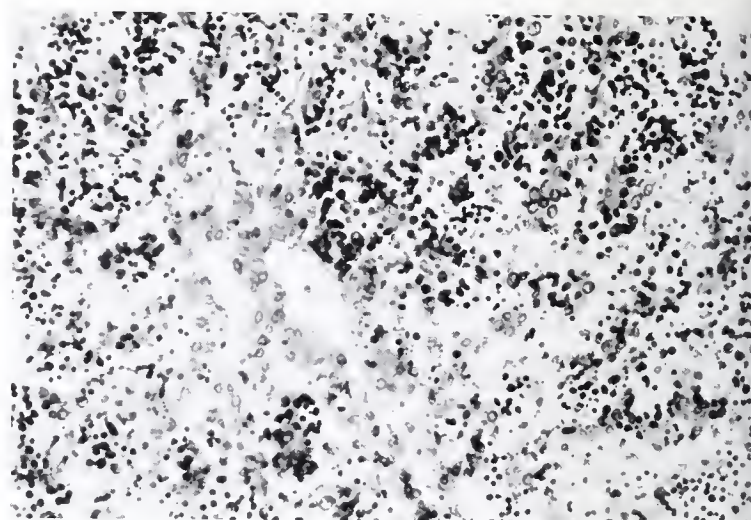


Figure 1. The liver has excessive extramedullary erythropoiesis represented by the dark round cells in the sinusoids, crowding the hepatocytes. Hematoxylin and eosin stain, 200X original magnification.

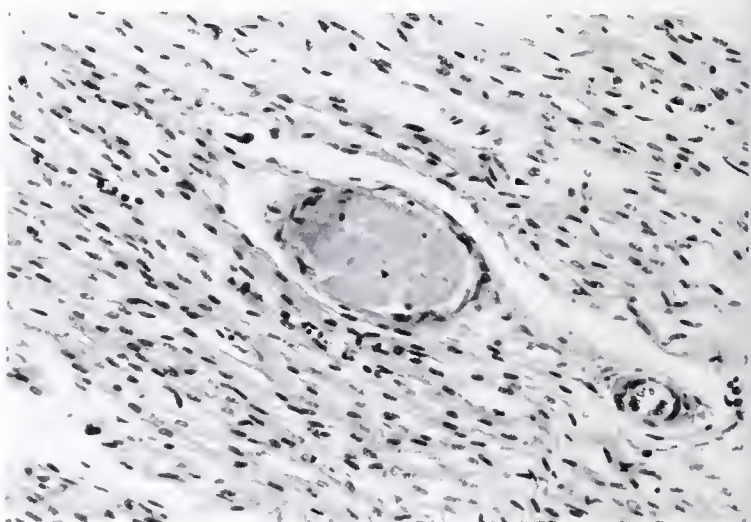


Figure 2. Disseminated intravascular coagulation: A representative platelet and fibrin thrombus fills a small intramural coronary artery. Hematoxylin and eosin stain, 200X original magnification.

change transfusion for the rising bilirubin could be performed later. Furthermore, heparinized blood should be used instead of citrated blood because of the added danger of acidosis in an already acidotic neonate. The principle I am expounding here is to treat the acute condition first and carry out the exchange transfusion later.

Dr. Leo Stern:* A hemoglobin of 9.5 is really not low enough to produce this much difficulty at the time of birth. I would agree with Doctor Oh that there is no rush in giving a transfusion in this baby. If the hemoglobin had been as low as 3 or 4

* Chief of Pediatrics, WIH.

† Neonatology Fellow, WIH.

‡ Director of Continuing Medical Education, WIH.

* Chief of Pediatrics, Rhode Island Hospital, and Chairman, Section of Pediatrics, Brown University.

gms/dl, then a transfusion would have been indicated, using heparinized blood, which has a pH of about 7.4. I should like to ask if the blood sugar was tested. Severely erythroblastotic babies are frequently hyperinsulinemic and may be profoundly hypoglycemic.

Doctor Weinstein: Blood sugars were not recorded in the record available.

Dr. John Evrard:† We note that antibody titers were not done during pregnancy. Even though this is a primigravida, they should have been performed in any mother who is Rh negative. This is one of the most important lessons to learn from this case.

Dr. Don B. Singer:* The autopsy examination showed a massively enlarged liver and spleen. Extramedullary hematopoiesis (Fig 1), by morphometric evaluation, comprised 18.5 per cent of the liver's mass; this is 4 times normal for an infant of this age and weight. While we did not measure the mass of erythroblastosis in the spleen, it appeared to be of the same magnitude. The hepatocytes were not severely damaged.

Petechiae and purpuric lesions were noted on the heart and pleura. Frank hemorrhages were also present in the lungs. Where there was not hemorrhage, there was edema due to heart failure. In the myocardium (Fig 2), acellular fibrin thrombi were present in small vessels. So there was a disseminated intravascular coagulopathy, the anatomic marker for which is thrombosis in tiny vessels throughout the body.⁴ This resulted in tissue destruction, most pronounced in the gut and adrenal glands; hemorrhagic necrosis destroyed about 50 per cent of the adrenal tissues.

Doctor Smith was correct in his prediction of the source of the hemoperitoneum. The splenic capsule was ruptured. We have no evidence that this was due to trauma and may well have been due to rapid swings in blood volume during the exchange transfusion. These were superimposed upon the spleen, which was already enlarged due to the extramedullary hematopoiesis.

The brain has hemorrhages, but not in the intraventricular or subependymal area; rather in the cerebellar cortex, where such lesions are most often associated with hypoxia alone.

The anatomic diagnoses are:

1. Hemolytic disease of the newborn due to maternal-fetal Rh incompatibility with massive extramedullary hematopoiesis
2. Anemia
3. Pulmonary hemorrhage and edema
4. Coagulopathy (DIC)
 - a. adrenal hemorrhage and necrosis
 - b. multifocal hemorrhage and necrosis in bowel
5. Splenic rupture
6. Cerebellar petechiae

References

- ¹ Vos GH: The frequency of ABO-incompatible combinations in relation to maternal rhesus antibody values in Rh immunized women. *Am J Hum Genet* 17:202-211, May 65.
- ² Walzl H, Fodisch HJ, Kurz R, et al: Intracranial haemorrhage in low-birth-weight infants and prophylactic administration of coagulation-factor concentrate. *Lancet* 1:1284-1286, 9 Jun 73.
- ³ Simmons MA, Burrington JD, Wayne ER, et al: Splenic rupture in neonates with erythroblastosis fetalis. *Am J Dis Child* 126:679-681, Nov 73.
- ⁴ Woods WG, Luban NL, Hilgartner MW, et al: Disseminated intravascular coagulation in the newborn. *Am J Dis Child* 133(1):44-66, Jan 79.

Women and Infants Hospital
50 Maude Street
Providence, RI 02908

† Associate Director, Director of Medical Education, WIH.

* Chief of Pathology, WIH.

★ ★ ★



- **Funded CME's**
- **Flexible hours and locations**
(as not to interfere with your practice)
- **Non - contributory retirement annuity**
- **Affiliation with the largest comprehensive health care system in the world**
- **A chance to broaden your medical expertise**

★ ★ ★

or return coupon to:

★ AMEDD Personnel Procurement
★ FOB, Suite 532
★ 450 Main Street
★ Hartford, CT 06103



★ Name: _____

★ Specialty: _____

★ Address: _____

★ Business Phone: _____

★ Home Phone: _____

★ Best Time to Call: _____

198

South Providence Health Needs Assessment

Data Delineate Problems Justifying A Major Community Effort

Frank Thacker John Fulton Fran Yapchaian William Flynn
Bernard Beaudreau Barbara Sylvester Balbina Young

South Providence, a neighborhood in the City of Providence, Rhode Island (RI census tracts 4, 5, 6, and 7), contains approximately 10,000 people of diverse ethnic origin. Blacks, Hispanics, the Hmong, and Whites predominate. Unemployment is high, the average level of educational attainment is low, and many speak English as a second language. Many live at or below the poverty level. Despite the presence of a neighborhood health center, two major hospitals, and other health care facilities, serious health problems are prevalent.

In response to these problems the South Providence Coalition for Community Health Care was formed. Composed largely of individuals who either live or work in the community, the Coal-

tion has worked to improve the health of South Providence residents by improving and coordinating health care services available to them.

In 1980 certain members of the Coalition approached the Rhode Island Hospital Community Liaison Committee for help in their work. It was decided that a health needs assessment would be indispensable in the specification of health problems, the estimation of their importance, and the establishment of priorities for improved health services.

With the endorsement of the Coalition, eight professionals were invited to serve on a Health Needs Assessment Committee. All either lived or worked in South Providence, shared a concern for the health problems of the community, and had skills appropriate to the task. Committee members were encouraged to participate by their employers, who contributed their time and secretarial help to the project. The Committee had no other resources with which to undertake the assessment.

Assessment Strategy

Within the confines of its resources, the Committee chose a two-pronged assessment strategy: 1) a questionnaire for professionals who had had substantial firsthand experience with South Providence residents and their health problems, and 2) a review of all recent Rhode Island Health Department statistics pertaining to census tracts 4, 5, 6, and 7. The assessment plan called for a comparison of data from the two sources to identify problems of greatest import.

Frank Thacker, MSW, Case Work Supervisor, Rhode Island Department of Social and Rehabilitative Services; John Fulton, PhD, Department of Community Medicine, Brown University and Rhode Island Hospital; Fran Yapchaian, MS, Nursing Coordinator, Medical Primary Care Unit, Rhode Island Hospital; William Flynn, MSW, Director of Planning, Opportunities Industrialization Center of Rhode Island; Bernard Beaudreau, MCP, planner, Women's Development Corporation; Barbara Sylvester, BSN, staff nurse, Providence Ambulatory Health Care Foundation; Balbina Young, AS, Acting Health and Human Services Manager, Urban League of Rhode Island.

The questionnaire was sent to sixty professionals who serve the community in various capacities. Respondents were asked to list and explain those unmet community health care needs which they had observed. The list of respondents was compiled by Committee members who had made substantial professional contacts in the community over a number of years. Questionnaires were mailed to respondents, and follow-up telephone calls were made to maximize the rate of return.

A Committee member met with members of the Health Department's Office of Health Systems Planning, who provided him with published health statistics regarding South Providence, and worked out a plan to compile supplementary statistics of more recent origin. These latter statistics were ready for use about the time questionnaire responses became available for analysis.

Results of the Questionnaire

Of sixty questionnaires mailed, thirty-three (55 per cent) were returned after telephone follow-up. Although the rate of return was less than expected, a good cross section of community agencies are represented, including: hospitals (1), health and mental health centers (3), visiting nurses association (1), public schools (1), medical school (1), churches (2), day care centers for children (3), elder services (1), and social and other service agencies (10). (Multiple questionnaires were sent to the larger agencies.)

In a "sampling" of professional opinion such as this it would be misleading to present responses in precise statistical form, because of the tendency to attribute more exactness to the statistics than is warranted on the basis of collection techniques. Thus, responses will be grouped into broad categories, eg, "major consensus," "consensus," and "minor consensus."

Respondents were asked, "From your experience, can you list what you believe to be the most pressing health problems/barriers within the South Providence Community?" Responses included:

Major Consensus: inadequate nutrition; and need for improved maternal and child health (family planning services, prenatal care, venereal disease prevention and treatment, child abuse counselling).

Consensus: substance abuse; inadequate dental care; mental illness; lead poisoning; and special problems of immigrants (language/cultural barriers, need for eye care, birth defects, mental illness).

Minor Consensus: inadequate transportation;

safety hazards (dangerous play areas for children, substandard housing); inadequate knowledge of existing services; and lack of outreach programs.

Respondents also listed the agencies they called on most frequently in the management of their clients' health care needs:

Most Often Mentioned: Neighborhood health centers.

Often Mentioned: Visiting Nurse Association, Providence Mental Health, and Rhode Island Hospital.

Less Often Mentioned: St. Joseph Hospital (both Fatima and Providence Units), Women and Infants Hospital, Talbot House, and Oxford House.

Respondents were asked, "Do you feel there is adequate coordination between your agency and other social/health services within the South Providence Community?" The need for greater coordination was clearly expressed.

Of the solutions suggested by respondents, three clearly stand out as collective opinions: health education, greater coordination of existing services, and outreach from the larger institutions, like hospitals.

Health Statistics

Health statistics representing five year averages (1973-1977) for South Providence and Rhode Island are in Tables 1-3 (Source: *Community Health Profiles*, 1979. Rhode Island Department of Health). Only those statistics showing the greatest South Providence — Rhode Island differentials are presented. These data are probably indicative of important health problems in South Providence. The few more recent statistics available to the Committee (which in general were roughly comparable to the older statistics) have been omitted to prevent comparability problems. Statistics pertaining to the use of hospitals by South Providence residents are also presented.

While these data may be more or less indicative of the health problems with which they are listed, and while the statistics presented are somewhat crude (not standardized for age and sex, for example), they are more than adequate to demonstrate the magnitude of the general health problem in South Providence. The available statistics clearly support survey responses in the areas of maternal and child health, substance abuse, and unsafe conditions, while lending support in the areas of nutrition, mental illness, and problems of immigrant groups.

Recommendations

The Committee recommends that *major community efforts to improve health should be directed at three problems*: 1) Deficiencies in nutrition for all age groups; 2) Deficiencies in maternal and child health care, especially for teenage mothers and their children; and 3) Deficiencies in dental care for all age groups. These problems have been selected because respondents thought them important, because they affect many members of the community, because they are basic to many secondary health problems, and because they appear to lend themselves to intervention strategies within the power of the community. This is not to say that work on other problems should not go on; it should go on and is going on. Nonetheless, the Committee recommends that *major new efforts be concentrated on the selected problems to focus community resources and maximize results*.

The Committee recommends that *three task forces be selected to plan alternative intervention strategies, one for each of the three problem groups*. Task forces should vary in size according to need. Members should be chosen from the community, from service agencies and institutions, and from the State Health Department, if possible. Care should be taken to assure that task forces judiciously combine knowledge of the community and its services

Table 1. Comparison between South Providence and Rhode Island of Five Year Averages (1973-1977) of the Frequency of Health Problems Related to Nutrition and Maternal and Child Health.

	South Providence	Rhode Island
Nutrition		
% Newborns 2500 grams or less	14%	7%
Maternal and child health		
Infant deaths per 1000 births	27	15
Neonatal deaths per 1000 births	19	11
% Newborns 2500 grams or less	14%	7%
% Births to mothers under 20	37%	15%
% Out-of-wedlock births	54%	11%
% Births without 1st trimester care	31%	17%
Hospital discharges per 10,000 pop.		
Complications of pregnancy	44	13
Complicated delivery	124	59
Female genital disorders	95	56
Incidence per 100,000 pop.		
Syphilis	161	15
Gonorrhea	2743	225

and resources, knowledge of health program engineering, and knowledge of health planning.

Each task force should achieve the following objectives:

1) Gather comprehensive information on its assigned problem, including: names of all South Providence leaders/professionals who serve the people particularly afflicted with the problem; specific information on the magnitude and characteristics of the problem in South Providence; information about past programs designed to

Table 2. Comparison between South Providence and Rhode Island of Five Year Averages (1973-1977) of the Frequency of Health Problems Related to Substance Abuse.

	South Providence	Rhode Island
Substance abuse		
Deaths per 100,000 pop.		
Cirrhosis of the liver	65	18
Incidence per 100,000 pop.		
Hepatitis (infectious and serum)	49	31
Mental illness		
Hospital discharges per 10,000 pop.		
Mental disorders	39	29
Problems of immigrant groups		
Incidence per 100,000 pop.		
Tuberculosis	88	10
Unsafe conditions		
Deaths per 100,000 pop.		
Accidents, poisoning, violence	139	53
Hospital discharges per 10,000 pop.		
Fracture	68	40
Other trauma	99	48

Table 3. Institutional Distribution of Hospitalizations by South Providence Residents.

Hospitals Utilized	
Percent of all hospitalizations	
Rhode Island Hospital	39
St. Joseph Hospital (Providence & Fatima units)	33
Women and Infants	13
All others	15
Total	100

address the problem in South Providence and similar communities in the State; and information from the scientific literature about the problem, and the pros and cons of alternative solutions.

2) Serve as a clearinghouse for such information in the community.

3) Develop alternative strategies for addressing its assigned problem which are: a) comprehensive, b) long-term, c) significantly preventive, d) significantly educational, e) based on evidence of their effectiveness in communities such as South Providence, f) designed to reach out and engage consumers, g) designed to preserve and enhance the dignity of consumers, and h) designed to enhance the ability of consumers to use services effectively.

4) Recommend the strategy most likely to succeed in South Providence.

5) Determine which strategy is preferred by the community.

6) Implement the strategy.

7) Evaluate the strategy periodically, recommending and implementing change.

Task forces should be in place by January 1982 and should attempt to achieve objectives one through four within the year.

The needs assessment committee wishes to thank Ann Sousa and Dr. Herbert Constantine for their ideas, encouragement, and support, and our employers, without whose support this work could not have been done. We would also like to thank William Waters, PhD of the Rhode Island Department of Health and his staff for their assistance.

John Fulton, PhD
Rhode Island Hospital
Providence, RI 02902

Role of a Professional Society of Cancer Care Physicians

Provides a Unique Opportunity to Extend Knowledge of Cancer to the Public and to Practicing Physicians

Louis A. Leone, MD

The ancient Egyptians, who practiced empirical medicine, recognized tumors and introduced the use of arsenic pastes in the treatment of superficial skin lesions. Aristotle introduced the idea of a rational approach to cancer disease and indicated its systemic nature. Galen, around 200 AD, agreeing with the black bile theory of systemic disease, said that treatment should be systemic rather than local. He made a significant point, to be heeded well by chemotherapists, that “the drug used should be temperate and non-irritating.” Aristotle and Galen prevailed until the time of the European renaissance, when it became clear that black bile could not be found, and the fluid lymph system was at fault. This concept re-emphasized the systemic nature of cancer, and it was not until the early 1700s that a French surgeon, Le Dran, identified the localized early stage, curable by surgery. He also described regional nodal spread, but persisted in his belief that, if “cancer lymph” passed beyond the region-

al lymph nodes, the entire system was contaminated. Morgagni carried out autopsy studies on 700 patients and identified malignant neoplasms as being quite different from other benign swellings or masses, such as aneurisms, gummata, and granulomata. It was he who first described cancer of the lung, esophagus, stomach, rectum, and uterus. Johannes Müller identified the cellular nature of cancer, and his student, Rudolph Virchow, proposed for the first time that all cells arise from other cells. Virchow also introduced the concept that constitutional or hereditary predisposition and chronic irritation contribute to the formation of tumors. Subsequently, in the late 1800s, the cellular origin of metastases was discovered, and the concept that cancer starts as a local disease, often curable in its early stages, and incurable in its disseminated state, became firmly established. Other theories of the origin of cancer including the embryonal, traumatic, and parasitic concepts, have received significant attention. It is of special interest that John Andreas Fibiger, of the University of Copenhagen, received the Nobel Prize in Medicine and Physiology in 1926 for his observation that a nematode (*spiroptera neoplastica*) was the probable cause of spontaneous gastric carcinoma in three wild rats.

The concept that cancer could be cured in its local stage, and the failure to identify a significant etiology, resulted in increasingly energetic efforts to treat cancer locally by surgery or radiation therapy. Such names as Billroth, Beaumont, Bernard, Syms, Kocher, and Halsted are well known for their contributions to cancer surgery. Roent-

Presented at the Annual Meeting of the New England Cancer Society, Burlington, Vermont, December 5, 1981.

Louis A. Leone, MD, Director of Medical Oncology, Rhode Island Hospital, Providence, Rhode Island.

gen's discovery of x-rays, and the introduction of radium by the Curies, suggested the potential for a magical cure. Over a period of 80 years, dosing techniques, megavoltage equipment, use of interstitial and radioisotopic methods have significantly contributed to the curability of a number of tumors. With the first use of nitrogen mustard in the 1940s, a new modality appeared and now makes its own contribution to the cure of a number of malignant tumors.

While much has been learned about the causes of cancer disease, little has lent itself to practical application in cancer reversibility or prevention. Even when the simple act of discontinuation of smoking would drastically reduce the incidence of lung cancer, few smokers comply, and the incidence continues to rise. It is understandable, therefore, that great emphasis has been placed on therapeutic approaches by a profession already highly problem-oriented. Radiation Therapists have become radiation oncologists. Two years in training fellowships convert internists to medical oncologists. Although they have not yet established an accredited subspecialty, an increasing number of surgeons perform most, or all of their surgery on cancer patients. Gynecologic oncologists have already made significant contributions to the field of education and clinical investigation. This ever-increasing emphasis on specialized treatment for cancer, and the introduction and proliferation of other care specialists, such as nurse oncologists, oncology social workers, liaison psychiatrists in oncology, oncologic psychologists, oncology pharmacists, patient advocates, and hospice volunteers, necessitates reevaluation of the physician's role in the care of the cancer patient.

Multidisciplinary Concept

The multidisciplinary team concept continues to be extremely useful in the planning of the sometimes complex management of patients with cancer. While the physician generally continues to lead the team, or direct the treatment plan, his or her assertive role often becomes less visible, particularly as the disease progresses. Factors contributing to this situation include multiple attending physicians, involvement of other specialties, including nursing, psychiatry, patient advocates, hospice, and the questioning of physician authority by the better informed (or incompletely informed) patient. These changes reflect increasing awareness of the need for a total approach philosophy. The overall performance of patients as measured by their psychosocial response (includ-

ing coping, emotional attitude, productivity), economic status, degree of physical disability, family problems and other related factors, is critical to successful treatment and is increasingly considered to be as important as medical care.

While the oncologist's attitudes and management authority are being challenged, the physician continues to be responsible, not only for the direction of medical treatment, but also as a resource for information and direction in the other areas of patient support. In general, medical curricula do not prepare physicians for dealing with the multiplicity of problems that face patients with chronic disease. In addition to therapeutic skills, the oncologist physician must be prepared to cope with the patient's non-medical, but related needs; must have good understanding of current research and its application to clinical treatment; must be aware of the importance of research and its application to clinical treatment; must be aware of the importance of research and the national policies that affect its support; and must accept the responsibility for educating younger physicians and the public in concepts of cancer causes and treatment. The oncologist physician can appropriately retain the leadership role through broader acceptance of total care responsibility.

How have oncologists responded to this challenge?

Role of the Oncologist

Approximately 21,000 physicians in the United States consider themselves to be oncologists, or consider oncology to be a major component of their practices. A significant number have organized themselves into specialized societies, some of which require special qualifications and board certification for membership. These include: The American Society of Clinical Oncology; the Society of Surgical Oncology, Inc.; the American Radium Society, Inc; the American Society for Head and Neck Surgery; the American Society of Therapeutic Radiologists; the Society of Gynecologic Oncologists; and the Society of Head and Neck Surgeons.

These societies represent a vertical structural concept, traditional within the medical profession, which requires a kind of uniformity among the specialists, resulting in a comfortable family type homogeneity. Cross-breeding among the specialists is often carefully avoided. (Exceptions are the American Society of Clinical Oncology and Association of Community Cancer Centers). These organizations unquestionably serve the

purposes of furthering education, and supporting and reporting of important research. They do not, and probably do not intend, to represent themselves as teachers of total care concepts. Their primary purposes of cancer education and cancer research must be supplemented by additional efforts in the broadened scope of total care, public education, and public issues.

Of special importance in patient care is the relationship between oncologists working within centers and those oncologists practicing in the general community. Clinical investigation is essential to furthering knowledge and improving treatment methods. The methods of such investigations are well known to young physicians completing fellowships in various centers throughout the country. Their participation in these endeavors as fellows should be extended to their involvement as community oncologists. Their contribution to clinical studies, under the same standards of quality control they learned in fellowship, will enhance both the research to be undertaken and the quality of patient care. The increasing number of patients managed in non-center hospitals may represent the most critical factor in the success of future clinical investigation. This trend toward more care in the community applies equally to the three major treatment modality specialties in oncology. The clinical trial, therefore, in surgical, medical, or radiation oncology must be extended as a practical tool within the community, and should represent a firm and important commitment of centers to the practicing oncologist, and of the community oncologist to the centers.

How then can these concepts be implemented, and by whom? The New England Cancer Society was founded in 1939 and, with limited membership, dedicated itself to education. Members reported their personal experiences and therapeutic results at an annual meeting. Two additional sessions were held annually until 1949, when an interim meeting took place, a tradition that continues today. As the Society grew, it became evident that limited membership could not accommodate all those practitioners with a primary interest in cancer management. For several years the Society has followed a policy of open membership (without limitation) for any physician certified by one of the American Specialty Boards, or for a physician who by clinical, hospital, or laboratory research has made a definite contribution to the subject of cancer. All major specialties are represented among 300 members. This horizontal structure cuts across the multiple

oncology specialties and so represents a more nearly universal outlook than that of the more restricted, and somewhat more rigid organization of many national societies. The Society contains an agreeable mix of community physicians and center-based physician investigators. The Society recognizes a need for increasing its educational efforts and communication among members, and therefore will extend its October 1982 meeting in Newport by an additional half-day session. For the first time, proffered papers from the general membership will be included in the program.

Specific Needs of Patients

As interest in cancer treatment grows, with an ever-increasing number of oncologists in the field, should not the Society once again define its primary focus; that is, the *specific needs* of patients with cancer? I have touched upon three major categories in which I believe the Society should thoroughly assess its potential role:

1. *Total patient care.* While most would agree that physicians must continue to lead the management team in the care of cancer patients, they are no longer able to implement all required components of the care process. The need for proper discharge planning following hospitalization, and for community services available through nursing and rehabilitation organizations, and the supplying of appropriate counseling and information for patients is generally recognized. Planning for all aspects of post-treatment management during and after hospitalization should begin with the multidisciplinary consultation or conference. The appropriate specialized and technical non-medical personnel required for smooth recovery and rehabilitation should be consulted early in treatment deliberations. The mechanisms for initiating such action are not often readily known to medical or nursing personnel in many hospitals. Often when finally instituted in response to urgent needs of patients and physicians, less than optimal patient performance and benefit results. The New England Cancer Society, with its broad representation in oncology medicine, should assess its present and potential role in this critical aspect of patient care.

2. *Public Information and Issues.* Except for the American Medical Association, and a small number of other national professional medical organizations, professional specialty societies generally avoid declaration on issues affecting the public health. Volunteer organizations, such as the American Cancer Society, have clearly led the

way in informing and educating the public on cancer health issues. This problem may be divided into two segments.

First, the matter of early detection and prevention: The cancer physician must be the primary resource for early detection and prevention information. Even though cancer patients no longer enjoy the privilege of being members of the "normal" population practicing early detection habits, the physician's management goals include prevention of new cancer, or early detection of "second primary" disease. It is equally important that non-oncologists fully understand and employ these concepts in *their* practices, for it is *they* who must bear the major responsibility for prevention and early detection among the "normal" individuals. It is the oncologist who must inform the public and educate fellow physicians. The present membership of the New England Cancer Society possess the greatest aggregate of information concerning cancer prevention and early detection in the northeast. The authoritative voice of the Society can teach our fellow physicians and inform the public in the *only* certain methods known for control of several prevalent and lethal malignancies.

Second, public issues, often involving complex problems of untried or quack remedies, or controversial state or federal health legislative actions, present practicing physicians (especially the oncologists) with a highly sensitive responsibility. Increased dissemination of information through the various press media (sometimes incomplete, inaccurate, or sensationalized) often kindles premature, or false, hope among patients with advanced cancer. The general public add pressure through unwarranted criticism of the medical establishment for failing to utilize a reportedly effective but unstudied, or even useless treatment. It may be difficult to determine whether a professional society, such as ours, can safely and effectively improve the public health through any action in this area. At the same time, a group of clinical oncologists, whose primary goal is the care of the patient with cancer, cannot totally ignore issues that affect the care of their patients and the health of the general public.

3. *Community Oncologist — Investigator Oncologist.* New England is fortunate in having numerous designated cancer centers and a large number of hospitals with fully approved multidisciplinary cancer programs. Outreach efforts from centers and from institutions participating in national clinical investigative programs, and the increasing numbers of trained fellows entering

practice, have clearly increased availability of high quality oncology care in our communities. Fellowship programs supply oncologists in most major specialties. There has been a threefold increase in the number of radiation oncologists since the early 1970s. An already large number of medical oncologists are being joined by certified gynecologic oncologists, and increasing numbers of surgical oncologists in well-equipped *community hospitals*. In spite of gains made using postoperative adjuvant chemotherapy (breast cancer), preoperative cytoreductive chemotherapy (head and neck cancer), or surgical cytoreductive therapy prior to chemotherapy (ovarian carcinoma), and in spite of increased cure rates in certain tumors with chemotherapy, radiation therapy, or both, several prevalent and lethal tumors continue to resist significant elevation of cure rates. There are no fully acceptable, standard, 100 per cent curative treatments for these malignancies.

The voluntary investigative clinical trial has amply demonstrated its effectiveness as a mechanism for obtaining valid treatment data and for demonstrating extended survival and cures in a number of tumors. It is therefore essential to consider that all newly diagnosed patients represent potential investigative volunteers who stand to benefit from entry into controlled clinical trials. A major portion of the training of clinical oncologists is comprised of almost total immersion into the use, benefits, and limitations of the clinical trial. All three treatment modalities have contributed significantly toward perfecting this treatment approach.

The trained community oncologist can participate effectively through a collaborative arrangement with center-based clinical investigative programs. While the program-based center supplies service facilities, continuing educational opportunity, rapid "hot-line" information, and opportunity for intellectual contributions, the community oncologist can in turn, supply important data, offer current and most effective treatment to his patients, and at the same time, maintain the fully private nature of his practice. Center and community oncologists must work together.

I believe that the three topics: *Total patient care; public information and issues; and the community oncologist-investigator oncologist relationship* are factors significantly affecting the quality of cancer care. They deal not only with the responsibilities of the clinical oncologist in the management of individual patients, but also bear on psychosocial problems; socioeconomic complications; non-

medical, but supportive care; responsibility for public information; professional education in detection and prevention; and extension of the principles of patient management into a collaborative framework, embracing center-based clinical investigation and the community-based practitioner. I propose that voluntary working groups be appointed to study all aspects of these issues, and to define and describe the related responsibility of the Society to the patient with cancer, to the public, to the practicing oncologist and to the general physician. The continuing growth of this Society, with its inevitable infusion of new blood, and the need for perpetuation of youthful vigor, requires that we take an occasion-

al dose of self-reassessment. The unique nature of the New England Cancer Society includes qualities of professional and academic excellence, intellectual curiosity, innovativeness, compassion, and flexibility. As the Society continues into its fifth decade, we can anticipate that, along with our continuing growth, we shall emulate such illustrious predecessors as Ernest Daland, Joseph Aub, George Waterman, Joe V. Meigs, and many others, and involve ourselves even more deeply in projects that improve the care of the cancer patient.

Rhode Island Hospital
Providence, RI 02902

Are you protected from employee embezzlement?

The Office Protection Plan (TOP) gives you one low-cost policy that covers:

- Destroyed accounts receivable
- Employee dishonesty and embezzlement
- Destroyed patient charts
- Office liability
- Personal injury
- Office equipment
- Practice interruption

Plus many other significant risks faced by physicians. And TOP covers these risks fully ... adequately ... so you need not worry again about loss. For more information on TOP, call Don Marcum at (401) 421-6900.



ESTABLISHED 1879

Starkweather & Shepley INC.

Representing the World's Major Insurance Companies

155 South Main Street, Providence, RI 02903 Telephone (401) 421-6900



CARDIAC REHABILITATION at THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

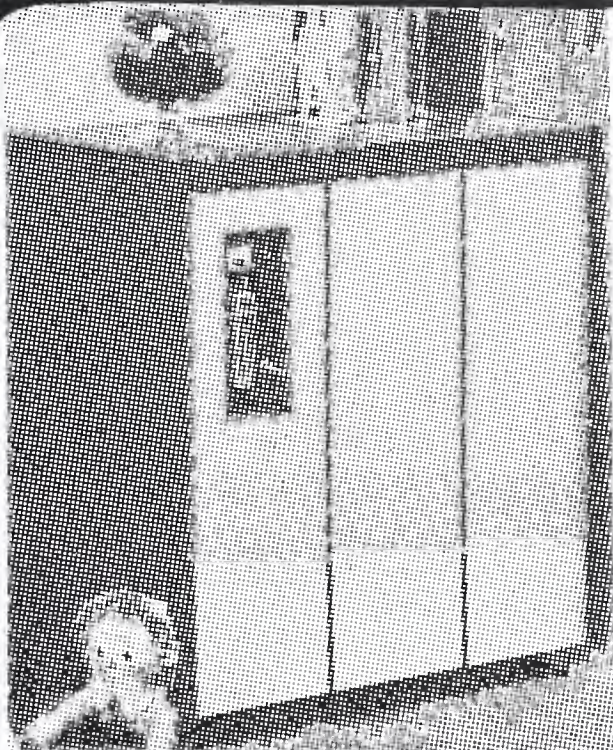
- following myocardial infarction
- following cardiac surgery
- with stable angina pectoris

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

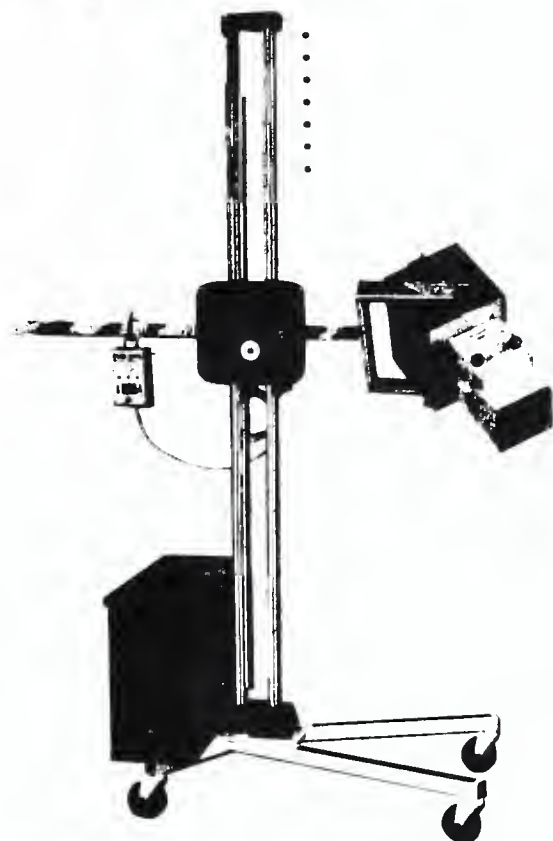
A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166

H X-RAY



Home X-Ray service of R.I.

595 Putnam Pike Greenville, R.I. 02828

**PROVIDING DIAGNOSTIC X-RAY & EKG
SERVICES TO:**

**NURSING HOME, CONVALESCENT &
PRIVATE HOME CARE PATIENTS**

24 Hour Radiological Interpretations
by Board Certified Radiologists

7 Days a Week

CALL 949-1170

"WE CARE"

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

EXPERTS
IN
OFFICE DESIGN
& SPACE
PLANNING



National Business Interiors

A Division of National Office Supply Co

36 Branch Ave., Providence, R.I. 02904 (Branch Ave. Exit Rt. 95)
401-274-9000

ANNOUNCEMENT

The course entitled GENETICS IN CLINICAL ONCOLOGY, will be offered for the second time 7-8 October 1982 in New York City by the Laboratory of Genetics, Department of Pathology, Memorial Hospital for Cancer and Allied Diseases. The objective of the course is to provide current knowledge of genetics as it pertains to clinical oncology in such a manner that will take on practical value.

The course has been approved for 15 credit hours in Category I of the Physicians Recognition Award of the American Medical Association. The fee for the course, including registration, reception, and luncheons is \$200. Co-directors: R.S.K. Chaganti, Ph.D. and James L. German, III, M.D. For more information, write or call Dr. Chaganti at Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021 (212/794-7100).



evening clinic

for alcohol affected families

A state licensed private medical outpatient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.

884-3530

**HEALTH HAVENS
NURSING HOME**

East Providence

The NME "establish your practice" benefits package:

- *Over 60 well equipped acute care hospitals.
- *Selected financial assistance.
- *Management consulting.
- *An array of professional service skills and talents to assist you.
- *Locations from coast to coast.

If you're a Primary Care Physician, call for yours today.

For further information, contact:
Raymond C. Prulitt, Director Physician Relations
National Medical Enterprises
11620 Wilshire Blvd., Los Angeles, California 90025.
Call Toll-Free 800-421-7470
or collect (213) 479-5526.

**NATIONAL MEDICAL
ENTERPRISES, INC.**



"The Total Health Care Company."
An Equal Opportunity Employer M/F

East Bay X-Ray

250 Wampanoag Trail, E. Providence

*is pleased to announce
the expansion of its services
in Diagnostic Radiology
and Ultrasound*

7:30 A.M. to 6:00 P.M.
Monday through Friday
8:00 A.M. to Noon Saturday

A. Della Selva, Jr., M.D.
E. Della Selva, M.D.
RADIOLOGISTS

Phone 434-6432 FOR APPOINTMENTS

CRANSTON MEDICAL CENTER

1370 Cranston Street
Cranston, Rhode Island 02920

Office space available
Ideally located
Ample parking
Looking for both Medical and
Surgical Subspecialties

Call 943-1211

EMERGENCY ROOM PHYSICIANS

Local Private Emergency Room

Full and part-time positions available — open
9:00 AM — 9:00 PM, 7 days a week. Excellent
compensation. If interested call 353-3037.

Fully Equipped Office for Rent

Includes five treatment rooms plus five additional
rooms.

Suitable for one or more doctors. Includes an ac-
tive practice.

For further information contact
Mrs. Anne Dayian
884-0473

Rhode Island Medical Journal

June 1982

Volume 65, Number 6

Give my love to all the good friends in Providence.

Sincerely yours,



William Osler to Frank T. Fulton (1910) *See page 243*

CONTRIBUTIONS

- 243 The Providential Visits of Sir William Osler
- 247 Diabetes Mellitus — Practical Aspects
- 251 Fatal Staphylococcal Septicemia Following Acupuncture: Report of Two Cases

225 NEWSLETTER

233 PRESIDENT'S CORNER

235 EDITORIALS

237 BOOK REVIEW

239 PROGRESS IN NEUROLOGY

LIBRARY
U.C. SAN FRANCISCO

JUN 29 1982

When your overweight patients seek your help with a weight reduction plan...



The benefits will outweigh the risks when you prescribe MELFIAT® 105

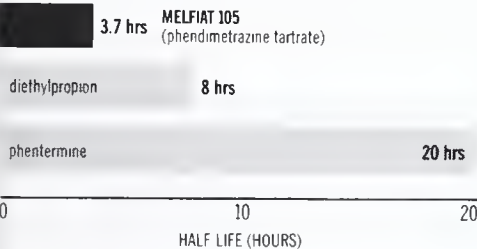
Because MELFIAT 105 effectively controls appetite.

MELFIAT 105 (phendimetrazine tartrate), an effective anorexiant, provides the appetite control overweight patients often need to begin a successful program of weight reduction. And the positive results of initial short-term therapy with MELFIAT 105 can help motivate them to a lifelong commitment of weight control.

Because MELFIAT 105 has a 3.7 hour half-life and low abuse potential.

Therapeutic efficacy combined with a short half-life and minimal abuse potential make MELFIAT 105 the drug of choice in the treatment of exogenous obesity. Because MELFIAT 105 has a short half-life, it minimizes drug accumulation and helps to eliminate such effects as disturbed sleep patterns. And, because MELFIAT 105 has significantly lower abuse potential than the amphetamines¹, there's less risk to your patients. According to a NIDA (National Institute on Drug Abuse) report, phendimetrazine appears to be the least abused anorexiant when compared to phentermine and diethylpropion¹.

Half-life comparison of MELFIAT 105 and other anorexiant²



MELFIAT® 105 UNICELLES® C^{III}

(phendimetrazine tartrate)
Sustained-Release Capsules 105 mg

Because MELFIAT 105 is in a sustained-release capsule.

MELFIAT 105 provides your patients with continuous drug delivery for appetite control that lasts throughout the day and helps to eliminate compulsive snacking and overeating at meals. In addition, the sustained-release capsule form maintains more constant blood levels of MELFIAT 105...without peaks and valleys.

Because MELFIAT 105 offers convenient, once-a-day dosage.

MELFIAT 105 is available in a convenient capsule containing 105 mg. The simple morning dosage regimen is designed to encourage compliance, minimizing the chance of missed doses and assuring optimum therapeutic results.

Because MELFIAT 105 is from Reid-Provident Laboratories, Inc.

Reid-Provident has the highest standards of quality to assure that only the finest products reach you. An advisory board of research scientists, physicians, pharmacists, and other technical staff continually review existing products and new product proposals to make sure that the latest pharmaceutical technology is used in their design and manufacture. That's because Reid-Provident is committed to you and your patients.

For more information please write to Reid-Provident Laboratories, Inc. 640 Tenth Street, N.W. Atlanta, Georgia 30318

References: 1. Sheu YS, Ferguson JA, Cooper JR: *Evaluation of the Abuse Liability of Diethylpropion, Phendimetrazine, and Phentermine*, unclassified document ADAMHA, HHS. Office of Medical and Professional Affairs, NIDA, 1980. 2. Douglas JG, Munro JF: The role of drugs in the treatment of obesity, *Drugs* 21:362-373, 1981.

MELFIAT® 105 UNICELLES® C^{III}

(phendimetrazine tartrate) 105 mg Sustained Release Capsules

INDICATIONS AND USAGE: Melfiat® 105 (phendimetrazine tartrate) is indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight-reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high-dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

USAGE IN PREGNANCY: The safety of phendimetrazine tartrate in pregnancy and lactation has not been established. Therefore, phendimetrazine tartrate should not be taken by women who are or may become pregnant.

USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure.

Central Nervous System: Overstimulation, restlessness, dizziness, insomnia, euphoria, dysphoria, tremor, headache; rarely psychotic episodes at recommended doses.

Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, other gastrointestinal disturbances.

Allergic: Urticaria.

Endocrine: Impotence, changes in libido.

OVERDOSAGE: Manifestations of acute overdosage with phendimetrazine tartrate include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states.

Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma. Management of acute phendimetrazine tartrate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Acidification of the urine increases phendimetrazine tartrate excretion. Intravenous phentolamine (Regitine) has been suggested for possible acute, severe hypertension, if this complicates phendimetrazine tartrate overdosage.

DOSAGE AND ADMINISTRATION: Since Melfiat® 105 (phendimetrazine tartrate) 105 mg is a sustained-release dosage form, limit to one sustained-release capsule in the morning. Melfiat® 105 (phendimetrazine tartrate) is not recommended for use in children under 12 years of age.

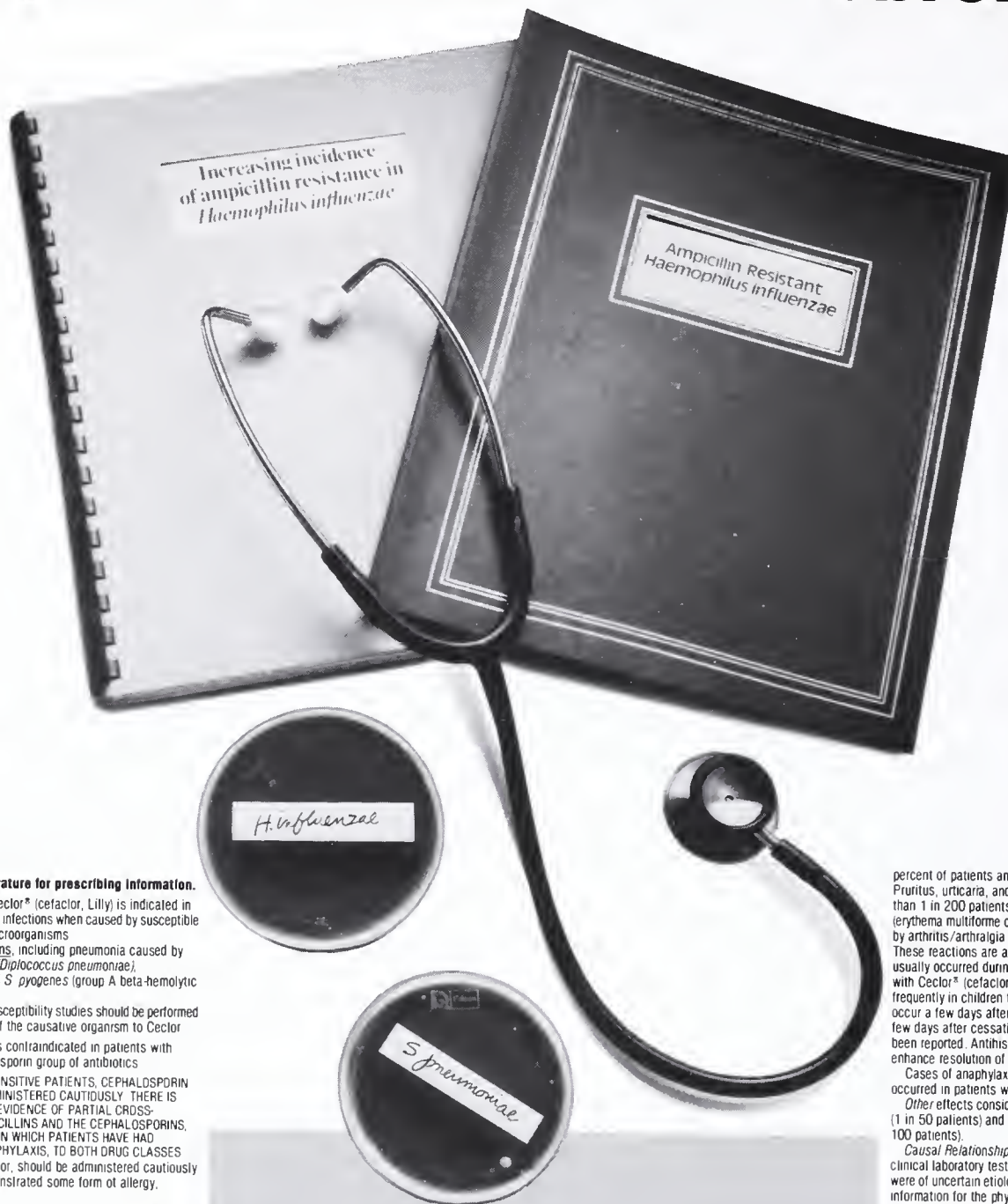
HOW SUPPLIED: Each orange and clear sustained-release capsule contains 105 mg phendimetrazine tartrate in bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.



Reid-Provident Laboratories, Inc.
Atlanta, Georgia 30318

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.

Consult the package literature for prescribing information.

Indications and Usage: Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Cefaclor.

Hypersensitivity reactions have been reported in about 1.5

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

Cefaclor®

cefaclor

Pulvules®, 250 and 500 mg

percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefaclor* (cefaclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain: Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). 1100281R

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefaclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975.
2. Antimicrob. Agents Chemother., 11:470, 1977.
3. Antimicrob. Agents Chemother., 13:584, 1978.
4. Antimicrob. Agents Chemother., 12:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11:880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285
Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

Rhode Island Medical Journal

June 1982
Volume 65, Number 6

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Maurice M. Albala, MD

Paul Calabresi, MD

Herbert Fanger, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Charles E. Millard, MD
President

William F. Varr, Jr., MD
Vice President

David R. Hallmann, MD
Secretary

Melvin D. Hoffman, MD
President-Elect

Erminio Cardi, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Elie J. Cohen, MD
Newport County Medical Society

Constantine G. Demopulos, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society



HOW TO SURVIVE PROSPERITY.

As any business grows, it stands to reason that its prosperity should increase. Unfortunately, this doesn't always happen. Because, very often, busy professionals can ill afford the time necessary for truly effective financial management and record-keeping.

At Levin and Parness, we understand. We're an accounting firm whose business it is to advise people on how to manage their business and personal finances for maximum effectiveness.

We can offer a wide range of services. Everything from setting up financial records to billing procedures to collection techniques. From tax planning to retirement benefits. From income taxes to payroll taxes. And all of our services give you the kinds of tools you need for better planning and maximized opportunities. While making minimal demands on your time and energy.

If you'd like to know more about how we could be useful to you, please call. We'll be happy to analyze your procedures and to suggest improvements.

Then you can quickly tell what your chances are of surviving prosperity long enough to enjoy it.

LEVIN
AND
PARNESS

Levin and Parness, Inc., Certified Public Accountants, 24 Mutual Place, Providence, RI 02906, (401) 273-6650

TABLE OF CONTENTS

225	NEWSLETTER
233	PRESIDENT'S CORNER The Physician, the Patient, and the Medical Society
235	EDITORIALS What a Paradox? A New Cardiac Pacemaker
237	BOOK REVIEW "The Neurobiology of the Leech"
239	PROGRESS IN NEUROLOGY Prophylactic Cranial Irradiation in Small Cell Carcinoma of the Lung
 CONTRIBUTIONS	
243	The Providential Visits of Sir William Osler <i>The Great Master Keeps Alive Rhode Island Connections</i> Irving A. Beck, MD
247	Diabetes Mellitus — Practical Aspects <i>Serial Determination of Plasma Insulin Levels Is Useful Method of Determining Type of Diabetes</i> Frank M. D'Allessandro, MD
251	Fatal Staphylococcal Septicemia Following Acupuncture: Report of Two Cases <i>Occurrence of Staphylococcal Septicemia Following Acupuncture Emphasizes Need for Thorough Medical Evaluation Before Such Procedures</i> Michael G. Pierik, MD





- ★ ★ ★

or return coupon to:

AMEDD Personnel Procurement
FOB, Suite 532
450 Main Street
Hartford, CT 06103

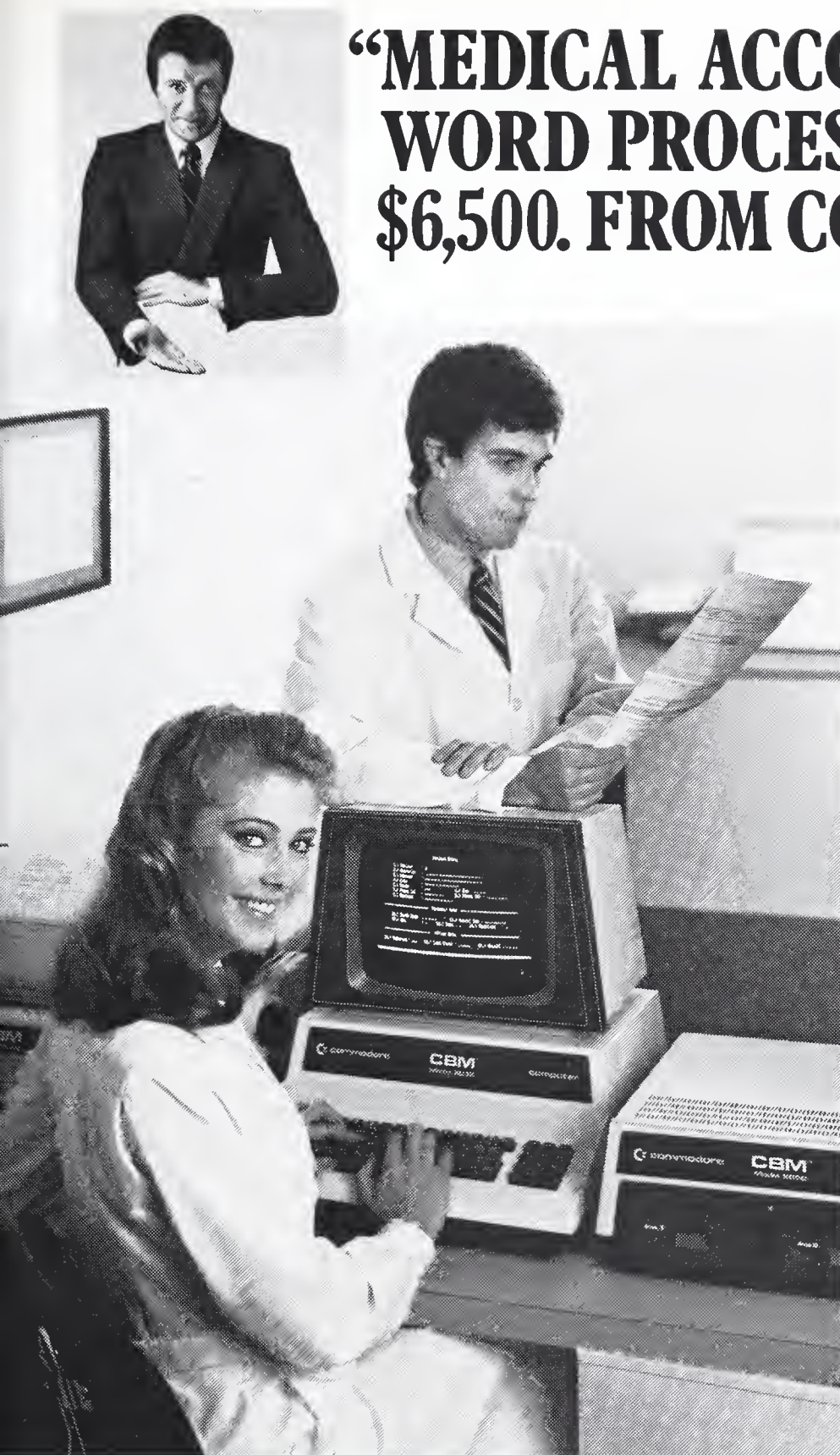
Name: _____
Specialty: _____
Address: _____
Business Phone: _____
Home Phone: _____
Best Time to Call: _____



218

“MEDICAL ACCOUNTING PLUS WORD PROCESSING FOR UNDER \$6,500. FROM COMMODORE.”

—WILLIAM SHATNER



The symptoms are common. Missing receipts. Overdue invoices. Neglected insurance forms. And, worst of all, a lot of precious time spent on paperwork that could otherwise be devoted to patient care.

The cure: A Commodore desktop computer. Including disk drive, letter quality printer, and complete medical accounting and word processing systems. For a modest investment, you get all the features of a sophisticated and versatile business computer that can do virtually all your paperwork in a fraction of the time it takes you now.

Commodore's Medical Accounting System (MAS)¹, for example, can provide you with a fast, flexible accounting and bookkeeping system that's as easy to use as it is cost effective. Automating your receivables, invoicing, aging of payables, and revenue analyses. MAS can also generate end-of-the-month "Superbills" as well as standard insurance and Medicare forms. And it gives you a thorough overview of your office activities through a series of reports ranging from diagnostics to referrals.

And with our word processing programs, your Commodore computer is versatile enough to be used whenever you'd normally use a typewriter. For memos. Reports. Correspondence. Proposals. In seconds, you can delete, insert, rearrange paragraphs, even revise as many times as necessary. With no time wasted typing multiple drafts.

If all that time saved on paperwork is used to take on additional patients, just think how quickly your Commodore computer will pay for itself, many times over.

Your Commodore computer can be expanded to meet the needs of a growing office. And Commodore dealers throughout the country offer prompt local service. Visit your Commodore dealer for a hands-on demonstration of the Commodore computer that does so much, so easily, at such a low cost.

¹ Medical Accounting System was created by Cimarron Corp.



Commodore Computer Systems
681 Moore Road, King of Prussia, PA 19406

(SJC-6)

☐ Please send me more information on the MAS System.

Name _____

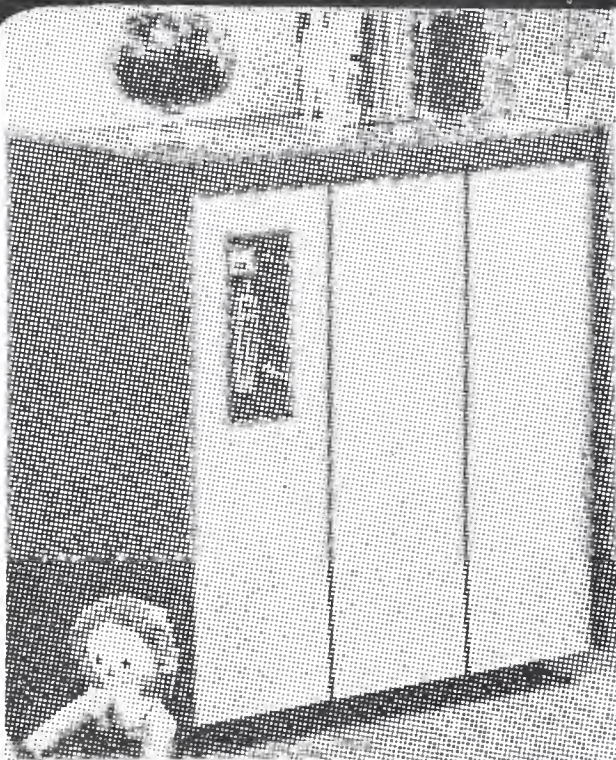
Address _____

City _____ State _____

Zip _____

Phone _____

commodore
COMPUTER



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

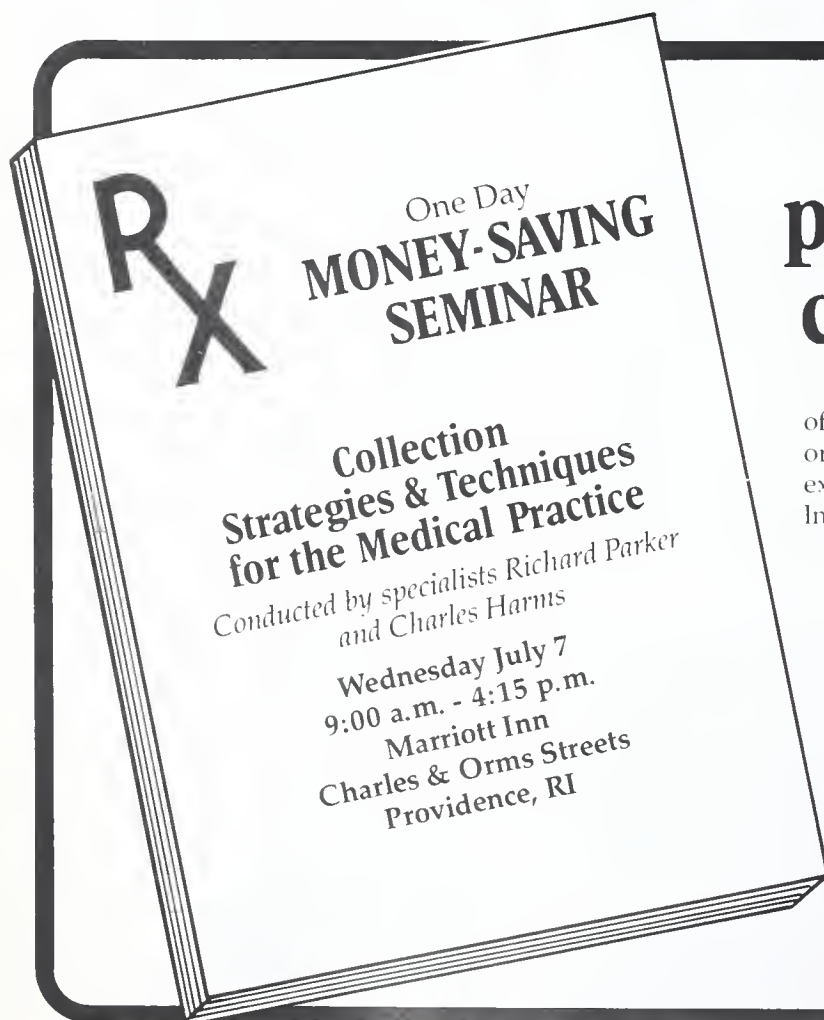
Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166



We've got the prescription for your collection problems

Learning our proven techniques can make the collection of past due accounts almost painless. Our intensive one-day seminar is designed to give your office staff the expertise to handle collections comfortably and effectively. In just one day participants will learn how to:

- Dramatically reduce your number of overdue accounts
- Prevent awkward and embarrassing confrontations with patients
- Maintain good cash flow
- Keep your bills on the top of your patients' payment pile
- Save on unnecessary collection agency fees

Enrollment is limited so reserve your space now! Send your check for \$175.00 per participant (\$155.00 each for 2 or more) to: **ID Seminars, 1500 Shelburne Road, Box C-1070, Burlington, VT 05402.**

Your money will be fully refunded if you're not 100% satisfied. Enroll today! Call collect (802) 862-1022 (Dept. A) for more details.

There's more to **ZYLOPRIM[®]** than (allopurinol).



- From Burroughs Wellcome Co. – the discoverer and developer of allopurinol
- Patient starter/conversion kits available for easy titration of initial dosage
- Patient compliance pamphlets available
- Continuing medical education materials available for physicians



Prescribe for your patients as you would for yourself.

*Write "D.A.W.," "No Sub," or "Medically Necessary,"
as your state requires, to make sure
your patient receives the original allopurinol.*



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION: INSOMNIA

Others to look for:

agitation
anorexia
feelings of guilt
and worthlessness
fatigue
palpitations
headache
vague aches
and pains
sadness
psychic and
somatic anxiety

Artist's conception,
looking out from the human eye
as conceived in a schematic model.



LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

**Limbitrol given once daily h.s.
may be the best approach**

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlorthalidone and 12.5 mg amitriptyline
(as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlorthalidone and 25 mg amitriptyline
(as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies.

Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those at barbiturate withdrawal for chlordiazepoxide)

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropyromidal symptoms, syncope, changes in EEG patterns

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for monitoring and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Packs of 50.

WHY YOU SHOULD MAKE A CORPORATE CONTRIBUTION TO THE AD COUNCIL

The Advertising Council is the biggest advertiser in the world. Last year, with the cooperation of all media, the Council placed almost six hundred million dollars of public service advertising. Yet its total operating expense budget was only \$1,147,000 which makes its advertising programs one of America's greatest bargains... for every \$1 cash outlay the Council is generating over \$600 of advertising.

U.S. business and associated groups contributed the dollars the Ad Council needs to create and manage this remarkable program. Advertisers, advertising agencies, and the media contributed the space and time.

Your company can play a role. If you believe in supporting public service efforts to help meet the challenges which face our nation today, then your company can do as many hundreds of others—large and small—have done. You can make a tax-deductible contribution to the Advertising Council.

At the very least you can, quite easily, find out more about how the Council works and what it does. Simply write to: Robert P. Keim, President, The Advertising Council, Inc., 825 Third Avenue, New York, New York 10022.



A Public Service of This Magazine & The Advertising Council.

The cost of preparation of this advertisement was paid for by the American Business Press, the association of specialized business publications. This space was donated by this magazine.



ROCHE PRODUCTS INC.
Manoti, Puerto Rico 00701

Newsletter

June 1982

Melvin D. Hoffman, MD, Editor
Karen Challberg, Associate Editor

RHODE ISLAND LEGISLATIVE ACTIVITIES--1982

During the 1982 January Session of the Rhode Island General Assembly there were over 1900 bills introduced in the House of Representatives and the Senate. More than 200 of these bills were health-related and commanded the attention and efforts of the Public Laws Committee.

Many individuals either visited the capitol to testify before committees or offered their expertise in other ways:

Charles Butterfield Esq, Legislative Counselor. Mr. Butterfield carefully followed the progress of bills and lobbied "up front" and "behind closed doors" on behalf of the Society.

Peter D.T. Clarisse MD. As chairman of the Public Laws Committee, Dr. Clarisse orchestrated the overview of the legislative process. He spent many long hours reviewing and evaluating legislation, circulating bills of interest to committee members for comments, presiding over meetings and coordinating lobbying efforts. Dr. Clarisse also met with the Chairman of the House Judiciary Committee and testified before the Senate Judiciary Committee to express the Society's opposition to legislation that would have repealed the existing court procedure and panel system governing medical malpractice suits.

John E. Farley MD. As Chairman of the Alcohol and Substance Abuse Committee, Dr. Farley provided written testimony and support for legislation (A) relating to drunk driving and, (B) prohibiting the sale of drug paraphernalia and look alike drugs.

Melvin D. Hoffman MD. Dr. Hoffman will be remembered this legislative year for his late night negotiations with the Coalition of Nursing Organizations and the State Health Department to make certain that the wording of the Nurse Practice Act was acceptable to the Medical Society. In addition Dr. Hoffman, as president-elect, expressed the Society's opposition to a proposal that would have designated RIPSRO as the single review system within the state.

Kenneth E. Liffman MD. Dr. Liffman testified on behalf of the Joint Underwriting Association (JUA) and the Rhode Island Medical Society in opposition to the medical malpractice repealer bill identified earlier.

Charles E. Millard MD. As President of the Society, Dr. Millard was an active and sought after spokesperson at the State House. Dr. Millard testified on: the physician assistant bill, establishment of a Rhode Island tumor registry, in opposition to a 5 per cent cap on all hospitals, doctors and health care facilities, and two acts identified earlier, the RIPSRO legislation and the medical malpractice repealer bill. It was not unusual to find Dr. Millard outside the Senate or House HEW Committee doors protecting the interests of his constituents, and assuring that the positions of the Society were heard.

Mario Tami MD and Albert F. Tetreault MD. Drs. Tami and Tetreault made certain that the composition of the physician assistant legislation which was signed into law was acceptable to the Rhode Island Medical Society House of Delegates.

Hugo Taussig MD. Dr. Taussig continuously assured that the concerns of the mental health community were expressed.

Paul T. Welch MD. Dr. Welch actively lobbied providing written and verbal testimony in support of the "Uniform Definition of Death Act."

Finally, a special expression of gratitude to the clerical staff of the Rhode Island Medical Society, especially Ms. Donna Rodrigues, who organized communications and typed various reports for the Committee. Her assistance in keeping all parties informed and updated was invaluable.

As you know, competing interest groups are speaking up and getting actively involved in the political process. Consequently, your grass roots involvement in a large part determines our effectiveness at the State House. Please keep your state representatives and senators informed of the viewpoints and concerns of the medical profession.

Next month's Newsletter will include an in-depth summary of health related legislation at the completion of this year's Session.

(Submitted by Brian Clarke, Assistant Executive Director)

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500



CARDIAC REHABILITATION

at

THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

- following myocardial infarction**
- following cardiac surgery**
- with stable angina pectoris**

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904

BECAUSE OF CHEMOTHERAPY KAREN ANDERSON IS A STATISTIC.

THE KIND OF STATISTIC WE LIKE TO BRAG ABOUT.



When Karen was only 18 years old, her doctor discovered she had a deadly form of leukemia. Facing incredible odds, a survival rate of only 3%, Karen spent the next three years in intensive chemotherapy.

Not only was her life at stake, but if she did survive, there were serious questions as to whether she'd be able to have children.

Now, eight years and two sons later, you'd never suspect that this vigorous young mother had battled a disease that kills more than 15,000 Americans every year.

Karen, Brian and Erik are living proof that we're gaining in the fight against cancer. It's a fight we can't afford to lose. It's your donations that help us continue the research, education and rehabilitation programs that will give us more statistics like Karen Anderson. The kind of statistics we can all be proud of.

SHARE THE COST OF LIVING

Give to the American Cancer Society.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn

References: 1. Williams RL, Karacan I: Introduction, chap. 1, in *Sleep Disorders: Diagnosis and Treatment*, edited by Williams RL, Karacan I, Frazier SH. New York, John Wiley & Sons, 1978, p. 2. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Kales A et al: *JAMA* 241:1692-1695, Apr 20, 1979. 4. Kales A et al: *J Clin Pharmacol* 17:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 6. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 7. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 15, 1978. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Dement WC et al: *Behav Med* 5(10):25-31, Oct 1978. 10. Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. 12. Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. 13. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 14. Kales A, Kales JD: *Pharmacol Physicians* 4(9):1-6, Sep 1970. 15. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

The Physician's Sleep Glossary

Some common sleep laboratory terms

poly•som•no•graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la•ten•cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af•ter sleep on•set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to•tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re•bound in•som•nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³

Efficacy objectively demonstrated in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.

In numerous sleep laboratory investigations patients fell asleep sooner, slept longer and woke up less during the night³⁻¹² with

Dalmane®
flurazepam HCl/Roche

Compared with temazepam and other hypnotics, onset of sleep is more rapid⁴ with

Dalmane®

Fewer middle-of-the-night awakenings⁴ with

Dalmane®

More total sleep time on nights 12 to 14 of therapy⁴ and continued efficacy for up to 28 nights⁵ with

Dalmane®

Rebound insomnia is avoided upon discontinuation^{3,4,7} of

Dalmane®

Low incidence of morning "hang-over"¹⁴ with

Dalmane®

The efficacy of Dalmane has been studied in over 200 clinical trials with more than 10,000 patients.³⁻¹⁵ During long-term therapy, which is rarely required, periodic blood, kidney and liver function tests should be performed. Contraindicated in patients who are pregnant or hypersensitive to flurazepam.

Please see summary of product information on following page.



ROCHE
PRODUCTS INC.
Manati, Puerto Rico
00701

Dalmane®
flurazepam HCl/Roche
15-mg/30-mg capsules

Dalmane®
(flurazepam HCl Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

The NME "establish your practice" benefits package:

- * Over 60 well equipped acute care hospitals.
- * Selected financial assistance.
- * Management consulting.
- * An array of professional service skills and talents to assist you.
- * Locations from coast to coast.

If you're a Primary Care Physician, call for yours today.

For further information, contact:
Raymond C. Pruitt, Director Physician Relations
National Medical Enterprises
11620 Wilshire Blvd., Los Angeles, California 90025.
Call Toll-Free 800-421-7470
or collect (213) 479-5526.

**NATIONAL MEDICAL
ENTERPRISES, INC.**



"The Total Health Care Company."
An Equal Opportunity Employer M/F

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, passwords and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indis-
pensable element in Business Insurance . . . *Personal*
Service by an agent who knows you and your business.



The Physician, the Patient, and the Medical Society

The mission of the Rhode Island Medical Society as stated in its *Bylaws* (Article 2, May 1980) is "To promote the science and art of medicine and the betterment of public health, to promote friendly-intercourse among physicians [and other health workers]; and to enlighten and direct public opinion in regard to the problems of medicine."

Two of the goals of the Society, then, are (through the confederation of the men and women of medicine) to promote and protect the best interests of the physician and to promote and protect the best interests of the patient. It might be thought by some persons that these goals are mutually exclusive, but I hold that they are, in truth, complementary.

The Physician

The physician begins his or her career with an oath to use acquired skills to the best of his or her ability within a framework of defined ethical behavior. Neither the oath nor the code of ethics can be put aside for a moment. The physician commits himself or herself, therefore, to a lifetime of study and to continuous acquisition of new knowledge. From time to time, society commands the physician to give proof of his or her compliance in keeping skills current and behavior above reproach, eg, licensure, hospital appointment(s), morbidity-mortality conferences, ethical and disciplinary boards, and continuing medical education. The Society, representing many physicians, has an obligation to monitor and advise on changing expectations and requirements for competency and ethical behavior, and it must meet the public's demands, as well as physicians' demands, through its committees dealing with legislation, ethics, mediation, and access to and delivery of health care, among others.

The growth of the science and technology of medicine has produced profound changes in medical practice. It is virtually impossible for a physician to acquire all the information and technical skills available. In the past 50 years the density of the primary care generalist has changed from nearly 90 per cent of practitioners to the present level of only 48 per cent. Current trends dictate that in the future there will be increases in



Melvin D. Hoffman, MD

the numbers of subspecialists, and further decreases in the percentages of primary care physicians (family practitioners, general internists, pediatricians, obstetricians, and some general surgeons). The generalists will be better trained and will have acquired many skills not had by primary care physicians of prior years. An informal system of consultation, redefined standards of care, and utilization of highly technical skills will allow the primary care generalist and the subspecialist to combine their efforts in new ways to meet the current expectations of quality care.

Allied Health Workers

Another biproduct of the increasing complexity in health care is the burgeoning growth of numbers of men and women in allied health professions. These individuals perform health services, operate many of the new machines employed in health care, and, because of their skills and special knowledge, they increasingly are called upon to advise or even direct the physician. The field of allied health workers also includes psychologist and social workers, who are an integral part of modern psychiatric care.

Contemporary nurses' training and performance far outreach those profession's classical re-

sponsibilities limited to personal patient care and housekeeping chores. Special training and the emergence of practical nurses, aides, ward managers, and other assistants have resulted in a complex and structured profession. As a result, nurses are demanding a greater voice in decision-making concerning the delivery of health care.

Nurse practitioners and physician assistants are relatively new breeds of "physician-extend-ers." Both of these groups are expanding their parameters. As this occurs, they ask for and often receive increased independence and reduced physician supervision.

A new Nurse Practice Act and revised legislation governing psychologists and physician assistants are only a few examples of the changing system of medical care.

Organized medicine seems alternately to welcome these new members of the health care team, and at other times to seek to redefine and to restrict their activity and independence.

Medical Society and/versus Allied Health Workers

The Rhode Island Medical Society has recognized this ever-increasing body of health workers by creating a special category of membership (*Bylaws*, Article 3.14, May 1980). One must wonder, however, whether such a relationship is in the best interests of the physician or the health worker. As the physician sees his traditional responsibilities passed to or shared with non-physicians, there sometimes develop adversary relationships. It is difficult to maintain helpfulness and cooperation. One group perceives that it is losing control, views "quality care" in a different light, and dislikes increased competition from without when there is already competition from within from the ever-increasing subspecialization and the overall increased number of practitioners. The other group, armed with newly acquired technical skills, is requesting greater participation and autonomy.

My concerns are: (1) The growth of allied activ-

ities in numbers and influence results in diminution of traditional physician responsibilities and services. (2) The old concept of the physician as the authority on health, which gave way to a view of the physician as the "captain on the team," now has evolved to include the physician only as a member of the team. (There may be no "captain" at all, but rather a group of "co-equals" motivated by different perceptions of their needs and abilities, often with the substitution of lay control in medical matters.) (3) A close alliance between physicians and other health care practitioners might, in the future, result in the public's mistrust of this liaison, similar to its current suspicions of the relationship between physicians and the pharmaceutical industry, physician "control" of health insurance, and physician influence in hospital governance.

I find myself increasingly of the opinion that the different professions of the health care delivery system, and particularly the physician population, should maintain an independence from one another. This would allow continued liaison, cooperative efforts, and, where necessary, an adversary position to be negotiated thereby meeting the needs of both parties and promoting the public good.

I invite your comments concerning this important and growing problem. Next month, I plan to explore the patient-physician relationship and the position of organized medicine in the promotion of public health and public opinion.

This is my first effort as President of the Rhode Island Medical Society. In the year ahead I hope to explore several areas now impinging on the profession. In addition, the office of President confers both opportunity and obligation. I pledge to all the members and potential members of the Rhode Island Medical Society to use the office responsibly and to allow fair and democratic debate on the important issues which concern all physicians.

Melvin D. Hoffman, MD
President

What a Paradox?

We constantly hear complaints about the rising costs of hospitalization and how they must be controlled. Indeed, people seem amazed by the increases in hospital costs over the past ten years, even though during the same time period the technology and products which the hospital offers have been considerably improved. *The hospital of today has services vastly expanded from those available in 1972.*

Since 1972 the price of a daily newspaper in our state has risen from 15 cents to 50 cents, a one hundred per cent increase, yet there has been no major change or improvement of the product. The price of a loaf of bread has risen similarly, but again the product has not changed to any significant degree.

In the hospital, however, increased costs have been accompanied by amazing advances. The following is a list of only a few of the innovations of the past ten years: coronary artery bypass; CT scanners; cancer chemotherapy drugs; micro-

surgery; joint replacements; nuclear medicine; TCO₂ monitoring; cardiac output machines; balloon pumps; intravenous infusion pumps; isolettes with thermal regulation; lens implant; new cardiac drugs such as propranolol; transluminal angioplasty; and many other ad infinitum.

It is not time we truly analyze how much money we *should* spend on health care? The statement is frequently heard that health care costs should not exceed ten per cent of the gross national product, but no study demonstrates that this estimate is correct. We should begin to face reality. We cannot have increasing technological advances without concomitant rising costs.

Remind your patients of these facts when they complain about the high costs of medical care.

Charles E. Millard, MD
Immediate Past President

A New Cardiac Pacemaker

According to that sterling medical periodical, *The Wall Street Journal*, the pacemaker manufacturers are working apace to perfect an implantable cardiac pacemaker that will correct tachycardia. Hitherto, control of tachycardia has been beyond the capability of the estimated 300,000 pacemakers now in use.

Whereas the present generation of pacemakers is designed to remedy the bradycardias, the control of rapid heartbeat by electrical devices has thus far not been attainable.

Altering an abnormally rapid heart rate presents a new problem for pacemakers. At times a rapid pulse is necessary to meet psychological demands and may in such instances reach levels of 150 or more in order to supply adequate oxygen to tissues. To interrupt this normal response would be dangerous. Therefore, the new pace-

maker must distinguish between a normal physiological tachycardia and one caused by underlying cardiac pathology.

Building such a "tachycardia-terminating" pacemaker is difficult. According to one biomedical engineer, "It's a wholly different philosophy." Tachycardia occurring in persons with underlying heart disease can range from degrees of discomfort to fatal fibrillation. The pacemaker must sense the beginning of tachycardia and determine whether or not it's a normal response to exercise. It must then deliver two or three precisely timed electrical energy bursts. The present pacemakers release a steady sequence of timed impulses to prevent the heart from lapsing into a serious bradycardia.

The pacemaker must be individually selected to take into consideration the type of arrhythmia

and whether it is of auricular or ventricular origin. The type of equipment may change as the patient ages or his disease progresses. Thus, the equipment should be reprogrammable, which may be difficult or not feasible in an implanted device. Reoperation for reprogramming or possible implantation of new unit would thus be necessary.

Engineers believe that recent advances in electronic chips, or microprocessors, have made possible the design of a tachycardia-terminating pacemaker that would be automated and reprogrammable after implantation.

Some early devices are now under clinical trial in selected patients. The implanted device is reprogrammed according to the individual patient's problem. The patient carries an external device which can be applied to the chest to activate the pacemaker whenever he feels a tachycardia coming on.

A device reprogrammable after implantation is also being tested. The physician can alter the length and number of heartbeats that will trigger the pacemaker. Since, however, it cannot distinguish between normal and abnormal tachycardia, it is limited to patients who would not ordinarily engage in strenuous exercise. It is believed that devices that will reliably distinguish malignant tachycardia are not too far from realization.

The goal of the three suppliers engaged in competition to accomplish this is a pacemaker built around a microcomputer that can be programmed and reprogrammed at will while in the body to counter any conceivable arrhythmia. It is predicted that such a device is actually not more than 12 to 18 months from being perfected. We shall await this development with interest.

Seebert J. Goldowsky, MD

"The Neurobiology of the Leech"

*edited by Kenneth J. Muller, John G. Nicholls, and Gunther S. Stent
Cold Spring Harbor Laboratory, 1981*

Brevity, style and form are basic to pleasing art. This latest in a series of "Reports on the Neurosciences" is an artistic exposition of a fascinating subject.

"Since the days of ancient Greece and Rome, leeches have been applied by physicians to patients suffering from diverse diseases such as epilepsy, angina, tuberculosis, meningitis, and hemorrhoids. By the 19th Century, use of the medicinal leech was so prevalent that it became almost extinct in western Europe, forcing Napoleon to import about six million leeches from Hungary in one year to treat his soldiers. This mania for leeching had at least one lasting benefit for contemporary biology — the medicinal application of leeches stimulate basic research on their reproduction, development, and anatomy. Thus in the late 19th Century founders of experimental embryology, such as Whitman, chose the leech to follow the fates of embryonic cells. Similarly, the nervous system of the leech was extensively studied by a roster of distinguished anatomists, including Sanchez, Ramon y Cajal, Gaskell, Del Rio Hortega, Odurith, and Retzius, who showed that it consisted of a chain of stereotyped ganglia, each containing about four hundred neurons. Interest in the leech thereafter declined, only to be rekindled in 1960 when Stephen Kufflar and David Potter of Harvard Medical School first applied modern neurophysiological techniques to its nervous system."

Since 1972 an intensive laboratory course in leech physiology and leech neurobiology has been conducted each summer at the Cold Spring Harbor Laboratory, culminating in the spring of 1981 in the Symposia which is the basis for the present volume. Hirudinea are blood-sucking worms whose biology and behaviour are described in detail in the first chapter. Leeching began early in Greek medicine, first described by Nicander, and well described in Galen. The heyday of leeching, however was in the late 18th Century in Western Europe. So widespread was

the practice of leeching that the English physician was often referred to as "the leech." Leech books contained nostrums and prescriptions for leeching under the title of "Leechedoms." Both bloodletting and leeching were based on the humoral theory of disease in which bad humors were extracted with the blood, either by phlebotomy or by leeching. Local areas of ecchymosis and blood accumulations were most susceptible to the local action of the leech. Even the first edition of Osler in 1892 had eleven references to leeching, although its heyday in America and the Continent was in the year 1830, spanning a period of approximately twenty years. Of general medical interest is the development of anticoagulant research, in which hirudin, which is secreted by the leech to maintain the liquidity of the blood, was discovered and investigated. Lastly, in fairly recent times the leech body wall has been used in the bioassay technique for acetyl choline.

"Perhaps the main appeal of the leech is the beauty of the ganglion as it appears under the microscope with its four hundred or so neurons so recognizable and so familiar from segment to segment, from specimen to specimen, from species to species. As one looks at these limited aggregate cells laid out in an orderly pattern one can not but marvel at how they on their own, being the brain of the creature, are responsible for all its movements, hesitations, avoidance, mating, feeding, and sensations. In addition to the esthetic pleasure provided by the preparation, we hope to communicate the intellectual excitement of trying to solve the circuitry and logic of a finite, well organized nervous system, one cell at a time."

The structure of the leech nervous system consists essentially of a primitive "brain," which actually consists of nothing more than the head ganglia followed by a chain of body ganglia in which single cells may be easily identified and destroyed or stimulated. The synapse, neurotransmitters, chemistry, generation of nerve cells, and circuitry have all been extensively and exhaustively studied on this ideal experimental model.

After the introductory chapter, from which the two above quotations have been taken, follow logically ten chapters of about twenty pages on leech

biology, behavior, medical leeching, leech nervous system, sensory cells and motor neurons, synapsis and synaptic transmission, neural circuits, neural transmitters, and the development of the nervous system with its regeneration and plasticity capacity.

The Appendix is a short "laboratory manual" which appears to this reviewer to be a summary of leech technology, which was presented at Cold Spring Harbor each summer in the last decade and has permitted the research which is here reported. A challenging concept found in this Appendix is the immunological identification of specific neurons. The concept of neurons forming antibodies is an intriguing intellectual one, considering the developing concept of slow viruses and the auto-immunity of many neuro-

logical diseases.

Cold Spring harbor, while indisputably one of the world's great centers of molecular biology, during the past ten years has begun to build a significant research program in neurosciences, of which this last book is Number 3 in a series of "Cold Spring Harbor Reports in Neurosciences."

In contrast to the little girl who received her Christmas book on penguins and remarked that "she learned more about penguins than she ever wanted to know," this "Neurobiology of the Leech" is all about leeches, and told this reviewer in a most delightful way everything that he wanted to know about them.

Robert V. Lewis, MD

Prophylactic Cranial Irradiation in Small Cell Carcinoma of the Lung

Joseph R. Salvatore, MD; L. R. Jenkyn, MD

It is generally agreed that whole-brain irradiation is useful in the palliation of patients with clinical evidence of brain metastases. The response rate to symptomatic cranial irradiation (SCI) in these latter patients approximates 60 per cent, with a median survival from the time of irradiation of five to six months in most series. Death due to brain metastases in these patients varies in frequency from 14 to 50 per cent. Radiation dose and fractionation schedule may vary considerably (1,000 R in one treatment to 4,000 R over three weeks), but the outcome is the same. Radiation side effects (encephalopathy, exacerbation of focal signs, herniation) are more prominent in patients receiving higher doses in shorter periods of time. These issues are elucidated in a recent review to which the reader is referred.¹

The administration of prophylactic cranial irradiation (PCI) to the whole brain of patients with known small cell carcinoma (SCCA) of the lung and no evidence of central nervous system metastases is controversial. Comparison of the extensive literature²⁻⁷ on patients receiving PCI in the absence of brain metastases is complicated by the following features: (1) the number of patients within each cohort reviewed are small; (2) accompanying treatment regimens including systemic chemotherapy and nonspecific steroidal therapy vary from group to group; (3) diagnostic methods differ, with recent papers providing computerized tomographic documentation (more sensitive than radionuclide brain scanning used in earlier series) of the absence of brain metastases; (4) cohorts of patients with SCCA are defined now in terms of limited (hemithoracic and mediastinal or bilateral supraclavicular adenopathy) and extensive (bilateral thoracic or distant metastases) disease; (5) the longevity of patients with SCCA of the lung has increased with advances in chemotherapy over the last decade possibly contributing to the increasing frequency of symptomatic brain metastases; and (6) the incidence of brain metastases at autopsy uniformly exceeds the incidence of clinically symptomatic

metastases in patients whether or not they receive PCI.

Within the confines of these limitations, the following questions are raised: What is the evidence that PCI reduces the morbidity from brain metastases in these patients and, hence, improves their quality of life? And, what is the evidence that prophylactic irradiation prolongs survival? Two papers which best address these issues are reviewed.

Maurer et al⁸ evaluated the value of PCI in a randomized prospective trial of combined modality therapy in 283 patients with SCCA. Males comprised 80 per cent of the patients reflecting the sex distribution of this tumor type. Subjects evidenced similar initial performance status and median ages ranged from 52 to 63 years in the four arms of the protocol. The treatment regimens consisted of cyclophosphamide alone, cyclophosphamide and methotrexate, cyclophosphamide with vincristine and methotrexate, or cyclophosphamide, vincristine, and high-dose methotrexate with citrovorum rescue. For those patients without clinical or radionuclide scan evidence of brain metastases and who were in partial or complete remission at the eighth week, a second randomization determined radiation to the primary tumor alone or to the primary tumor plus 3000 R to the whole brain. Overall, three (4 per cent) of 79 patients receiving PCI and 15 (18 per cent) of 84 control patients relapsed in the brain. Of those patients responding to the individual chemotherapeutic regimens with partial or complete remissions, two (4 per cent) of 51 patients receiving PCI and 8 (19 per cent) of 42 control patients developed brain metastases. There was no difference in survival, however, between the two groups (Fig. 1). The median survival was 8.4 months for those receiving PCI and 8.8 months for controls. Conclusions regarding the various chemotherapeutic regimens employed were limited by the small numbers of subjects receiving cyclophosphamide alone. A trend was seen toward increasing rates of responses to

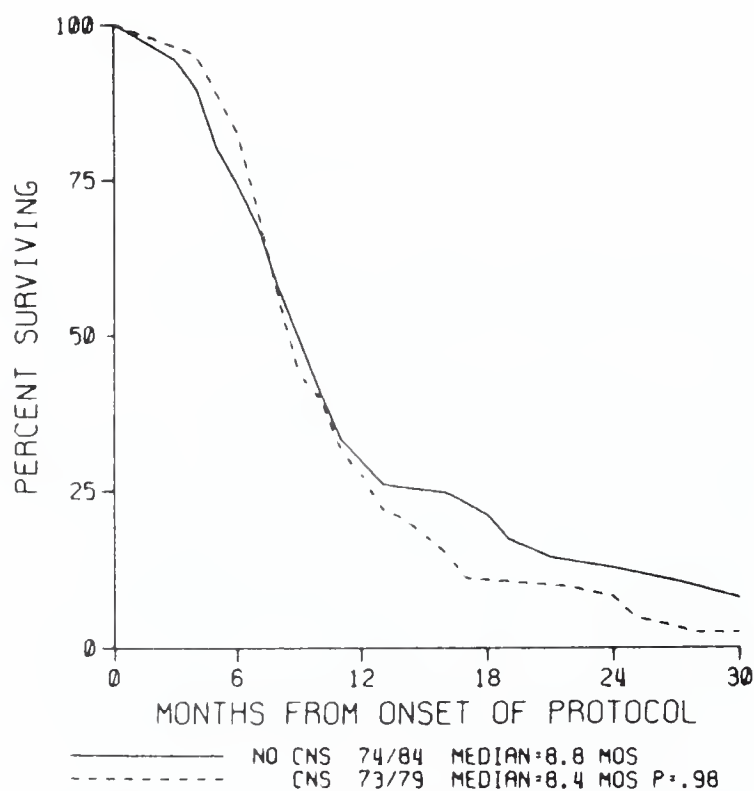


Figure 1. Survival rates of patients with SCCA receiving prophylactic irradiation compared with patients not receiving the treatment.

From Maurer LH, Tulloh M, Weiss RB, Blom J, Leone L, Glidewell O, Pajak TF: A randomized combined modality trial in small cell carcinoma of the lung. *Cancer* 45:30-39, 1980.

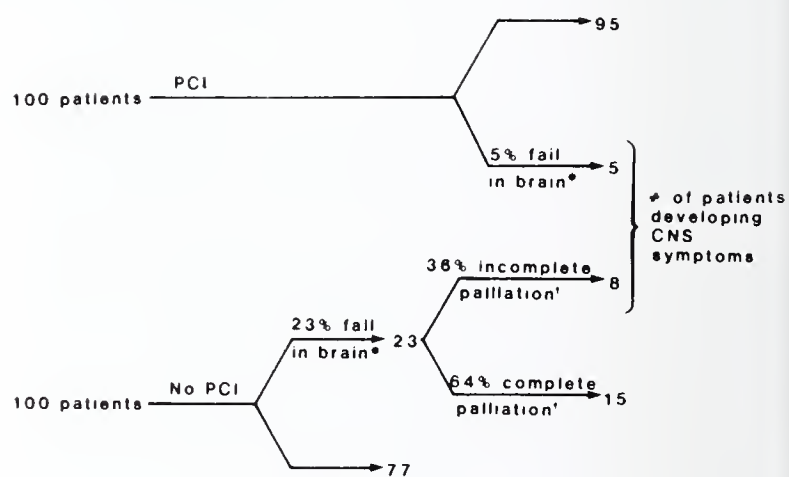


Figure 2. Irradiation of 77 patients benefits 3 patients (based on Table 1).

From Baglan RJ, Marks JE: Comparison of symptomatic and prophylactic irradiation of brain metastases from oat cell carcinoma of the lung. *Cancer* 47:41-45, 1981.

	PCI			No PCI		
	Patients	Brain metastases (%)	Median survival (mo.)	Patients	Brain metastases (%)	Median survival (mo.)
Jackson ^a	14	0 (0%)	9.8	15	4 (27%)	7.2
Tulloh ¹⁸	69	2 (3%)	8.7	82	14 (17%)	8.5
Williams ¹⁹	25	0 (0%)	11.4	19	6 (32%)	10.5
Cox ²	(130)*	—	9.2	(134)*	—	8.3
Cox ²	24	4 (17%)		21	5 (24%)	
Newman ¹⁴	—	—		46	13 (28%)	
Moore ¹³	240	12 (5%)		—	—	
Lyman ¹²	35	2 (6%)		—	—	
Levitt ¹¹	29	5 (17%)		—	—	
Kent ¹⁰	31	2 (7%)		—	—	
Einhorn ⁵	—	—		25	5 (20%)	
Einhorn ⁶	58	1 (2%)		—	—	
Trowbridge ¹⁷	—	—		15	4 (27%)	
TOTAL	525	28 (5%)		223	51 (23%)	

* Several lung histologies in addition to oat cell carcinoma; figures not included in total.

Table 1. Incidence of brain metastases and median survival in patients with oat cell carcinomas of the lung, receiving and not receiving PCI.

From Baglan RJ, Marks JE: Comparison of symptomatic and prophylactic irradiation of brain metastases from oat cell carcinoma of the lung. *Cancer* 47:41-45, 1981.

the three-drug regimens.

Baglan and Marks⁹ assessed the effectiveness of symptomatic cranial irradiation in 39 patients with SCCA. Fifteen (39 per cent) had brain metastases at the time of original diagnosis and 24 developed brain metastases at a median of 10 months from the time of diagnosis. SCI relieved signs and symptoms completely in 24 (64 per cent) while 8 (20 per cent) experienced partial palliation. Patients with better initial neurologic status were more likely to have complete palliation. These results were compared with published data regarding PCI (Table I) which corroborates the reduction in symptomatic brain metastases in those patients receiving PCI (5 per cent) versus those who did not (23 per cent). Figure 2 is hypothetically constructed using these percentages. Of 100 patients receiving PCI, 5 will develop symptomatic brain metastases. Of 100 patients untreated, 23 will experience symptomatic brain metastases and 15 of these will be palliated completely. Thus, 8 untreated patients will suffer continued neurologic complications. The authors conclude that SCI is better than PCI because the latter causes 77 patients to be irradiated unnecessarily to benefit only three. There are obvious limitations in comparing data from such disparate sources. Of the studies in Table I, some are retrospective, some are prospective, while only the first three are randomized with PCI and control patient populations. No information regarding chemotherapy or steroid administration is available for the retrospective data on SCI by Baglan and Marks. Lastly, no inferences can be made regarding responses to re-irradiation, quality of life of treated or untreated patients, and the intangible benefits of sparing three patients the suffering of metastatic cancer in the brain.

The fundamental value of PCI in patients with SCCA of the lung remains unproven. If a reduc-

tion in the frequency of symptomatic brain, no matter how small, is equated with improved quality of life, then an argument for routine PCI can be made. Clearly, survival is not prolonged by PCI, suggesting that systemic disease progression is the major obstacle still to be overcome. It may be that subgroups of patients with SCCA who will benefit most from PCI may be identified. Certainly, the patient unlikely to return for close follow-up is an obvious candidate. There does not appear to be a distinction between patients with limited or extensive disease.⁸ Only studies similar to that of Maurer *et al*⁸ with larger subject populations will answer the challenge posed by Baglan and Marks.⁹ Until then, clinical judgment remains the final arbiter in each individual case.

References

- ¹ Weiss L, Gilbert HA, Posner JB (eds): Brain Metastases. Boston, GK Hall, 1980.
- ² Holoye P, Samuels M, Lanzotti V, Smith T, Barkley H: Combination chemotherapy and radiation therapy for small cell carcinoma. JAMA 237:1221-1224, 1977.
- ³ Jackson DV, Richards F, Cooper R, Ferree C, Muss HB, White DR, Spurr CL: Prophylactic cranial irradiation in small cell carcinoma of the lung. JAMA 237:2730-2733, 1977.
- ⁴ Tulloh ME, Maurer LH, Forcier RJ: A randomized trial of prophylactic whole brain irradiation in small cell carcinoma of the lung. Proc Amer Soc Clin Oncol 18:268, 1977.
- ⁵ Williams C, Alexander M, Glatstein EJ, Daniels JR: Role of radiation therapy in combination with chemotherapy in extensive oat cell cancer of the lung: A randomized study. Cancer Treat Rep 61:1427-1481, 1977.
- ⁶ Bunn PA, Nugent JL, Matthews MJ: Central nervous system metastases in small cell bronchogenic carcinoma. Semin Oncol 5:314-322, 1978.
- ⁷ Moore TN, Livingston R, Heilbrun L, Eltringham J, Skinner O, White J, Tesh D: The effectiveness of prophylactic brain irradiation in small cell carcinoma of the lung. Cancer 41:2149-2153, 1978.
- ⁸ Maurer LH, Tulloh M, Weiss RB, Blom J, Leone L, Glidewell O, Pajak TF: A randomized combined modality trial in small cell carcinoma of the lung. Cancer 45:30-39, 1980.
- ⁹ Baglan RJ, Marks JE: Comparison of symptomatic and prophylactic irradiation of brain metastases from oat cell carcinoma of the lung. Cancer 47:41-45, 1981.



The above photograph of William Osler was taken by Doctor Frederick Lamont Gates, then a senior medical student, in the Johns Hopkins Hospital garden in 1913. It was printed for the author from the original glass plate by Doctor Gates' daughter, Deborah Gates Senft, of Providence. Two portraits in slightly different poses were taken at the same time and the other one appears in Cushing's *Life of Sir William Osler* (1925) ii, p. 352. On the verso of the print here reproduced, now in the Osler Library at McGill University, there is an inscription by Doctor W. W. Francis, Osler's cousin and literary executor, "The *good* one is in the 'Life'!"*

There is indeed a difference in the facial expressions. Osler was a man of many moods, and the pose above caught him in an unusually somber one. No record has been found of a prior publication.

Doctor Gates was the son of Frederick T. Gates, who directed John D. Rockefeller's philanthropy toward medical research and the resultant Rockefeller Foundations. Mr. Gates, a layman, had read Osler's *Principles and Practice of Medicine* in 1897 "without skipping any of it." As an advisor to Mr. Rockefeller, he succeeded in convincing him of "the actual condition of medicine in the United States and the world as disclosed by Dr. Osler's book."

IAB

*M. Fransiszyn, Manuscripts and Reference Librarian, Osler Library of the History of Medicine.

The Providential Visits of Sir William Osler

The Great Master Keeps Alive Rhode Island Connections

Irving A. Beck, MD

"Give my love to all the good friends in Providence. . . ."
William Osler to Frank T. Fulton (1910)

The number of visits that Osler made to Providence is uncertain — one of his many local physician friends, Doctor Wilfred Munro, wrote in 1928 that he had been a guest, "on several occasions," of the Friday Night Medical Club of Providence, Rhode Island. The archives of this small dining and discussion group, formal in dress, but informal in organization, still meeting regularly since 1887, contain no minutes and consist largely of reminiscences and memoirs of and about fellow members.

The papers of Doctor Frank T. Fulton including his diary, correspondence — especially with Osler — and unpublished autobiography have been made available to me by Mrs. Marshall N. Fulton. Most of this material has not been made public prior to this presentation.

Presidential Address, American Osler Society, Countway Library, Harvard Medical School, Boston, Massachusetts, April 29, 1980.

Irving A. Beck, MD is Consultant in Medical Education, General Hospital, Rhode Island Medical Center, Cranston, Rhode Island; and Lecturer in Medical Science, Brown University Program in Medicine, Providence, Rhode Island.

Other Osler visits were likely, judged from the nature of his correspondence with Doctor Frank Fulton and another Providence friend, Doctor G. Alder Blumer, then superintendent of Butler Hospital, and because of calls upon Doctor and Mrs. Henry Barton Jacobs in nearby Newport. In at least one of these he was accompanied by Doctor Fulton.

One Club visit of Osler is well described and will form a theme of this presentation.

Two other visits can also be documented. One was made to the Brown University Library, probably early in 1899 and is recorded in a typescript in its archives (1925) by the then librarian H. L. Koopman, excerpts from which follow: "I had recently come to Rhode Island, had lacked time and leisure to make myself intimately acquainted with the alumni records of Brown University and was, therefore, at a disadvantage when one afternoon Doctor Osler was brought into my office . . . and confronted me with the question, who is the most distinguished graduate of Brown University?" Professor Koopman proceeded to list some eminent alumni, but Osler "only shook his head and I was compelled to ask him to answer his own question." This was one of Osler's favorite ploys. He replied, "Elisha Bartlett, what do you know about him?" Osler had come seeking material for his forthcoming essay, but Koopman could only answer, "Nothing." Osler proceeded to enlighten him. The occasion for Koopman's recording of this visit was the acquisition in 1925 of additional unpublished letters to Bartlett — including one

from Oliver Wendell Holmes, a founder of this library,* requesting “material,” ie cadavers, from the almshouse of Lowell, Massachusetts of which Bartlett was the mayor.

Osler’s next visit was the delivery of his charming biographical essay *Elisha Bartlett: A Rhode Island Philosopher* before the Rhode Island Medical Society on December 7, 1899, and later reprinted in the volume “An Alabama Student and Other Biographical Essays” in 1909. The essay has gained attention in the past few years, during the rebirthing pangs of Brown’s present Program in Medicine, because of a footnote contained therein. I have not been able to determine whether the footnote was ever read, as this is not customary in oral presentations. It appears in the original printing in the *Transactions of The Rhode Island Medical Society* (VI 15-46 1899-1903) as well as in the collected essays. No reference is made to the note in the brief account of the speech in the contemporary *The Providence Journal*, but the mode of address indicates it was read.

The note, in part, after a text reference to “the untimely end” of Brown’s Medical Department in 1828, is substantially as follows: “May I be permitted, Mr. President, to remark that the existing conditions are singularly favorable (now) for a small first-class school. . . . What is lacking? Neither zeal, persistence or ability on the part of the physicians, but a generous donation to the university of a million dollars, with which to equip laboratories. . . . These alone are lacking; the preliminary scientific school is here; the clinical school is at your doors; the money should be the least difficult thing to get in this plutocratic town.”

The “plutocrats” apparently did not respond, for it was not till 1975 that Brown, after some years of a variably paced gestation, graduated a class of doctors in medicine.

At one Friday Night Club meeting in 1904 (the exact date is not available), Doctor Osler was a guest, and the following is directly quoted from Doctor Munro’s memoir: “Doctor Osler was placed next to Doctor (James W. C.) Ely. Doctor Ely, 84 years old, was tall, thin, dry, matter of fact and incapable of taking a joke. Osler, debonair, always playful when off duty and something of a tease, accused Doctor Ely of being a poet. The old doctor indignantly denied it. ‘I never wrote nor published a line of poetry in my life.’ Said Osler, ‘I know you have never *published* anything, but I’ll

wager you have reams of poems put away to be published by and by.’ So they had it back and forth, Doctor Osler enjoying it, Doctor Ely intensely earnest and getting madder and madder. I met the old doctor a day or two later and he at once exploded, ‘What did Doctor Osler mean by making a damn fool of himself talking about my writing poetry.’

“Two or three months later I was in Baltimore . . . and as always took in Osler’s Clinic. . . . On joining the group about the bed, there was on Osler’s part only that little droop of one eyelid which told friends that he knew they were present; but as we walked through to the next ward, he tucked his hand in my arm and inquired anxiously, ‘Have you seen any of Doctor Ely’s poetry yet?’ ‘No,’ I said. ‘You won’t forget to tell him I asked, will you?’ So I told the old gentleman the first time I met him, and he broke out, ‘Why does he make such a god-damned fool of himself? I always thought he was a man of some sense!’ After all, it was a little hard on Doctor Ely, but Osler had sized him up and couldn’t resist the temptation, much as he respected the man and his wealth of experience.” Osler’s lifelong tendency to such jokes was on occasion an irresponsible feature of his character.*

Later in 1904, probably in early April, the exact date is not available (although correspondence exists, it has only the day of the week noted), Doctor Frank T. Fulton of Providence, a protégé of Doctor Osler since his Hopkins student days (1895-1899), recorded that he “was planning a few days” visit to Johns Hopkins and told Doctor Ely of his plans. “He said, ‘you know, I would like to do that myself.’ . . . Doctor Osler subsequently sent word to . . . have us come to dinner.” (This invitation [Figure 1] has Osler’s admonition “mum on the sonnets” in the upper left hand corner.) To resume, “after arrival we first went to Doctor Osler’s ward visit at the hospital. Doctor Osler greeted Doctor Ely in his finest manner, took him by the arm down the ward, pointing out the interesting things and temporarily leaving out all the others who had come to make the ward visit. Doctor Ely was completely ‘melted.’ Doctor Osler insisted on our coming to dinner, giving the old gentleman his most gracious attention.” This was another example of Osler’s amends to those whom his practical jokes had offended.

Doctor Ely subsequently remarked to Fulton,

*Boston Medical Library, incorporated in the Countway Library.

* Robb-Smith, A. H. T. “Osler’s Sense of Humor.” Read at Oslerian Anniversary, 300th Meeting, Osler Club of London, 1976.

"I had the best time of my life on that visit to Baltimore."

On February 22, 1905, Osler, then 55 and about to leave Hopkins to assume the Regius Professorship at Oxford, gave his notable valedictory address in Baltimore on "The Fixed Period." Nothing Osler ever wrote gave him more widespread public attention and undeserved infamy.

To summarize the speech briefly, the title and theme were taken from Anthony Trollope's novel in which in Osler's modified version at age 60 men "retired into a college for a year of contemplation before a peaceful departure by chloroform."* Osler observed that the moving vitalizing work of the world is done before the age of forty and concluded by noting that the teacher's life should have 3 periods, terminating at age 60, at which age they would be retired on double allowance. Whether chloroforming should be carried out he had become "a little dubious as my own time is getting so short."

The speech and its sequelae were the subject of a large number of contemporary newspapers reports, mostly vilifying, and in addition at least 38 articles have appeared in the medical literature including one as recently as 1977. Doctors William Bean in 1966, and Charles Roland in 1965, are among those who have described various ramifications of this episode and I refer you to their contributions for the details. A 1977 editorial (Weisse AB: *Journal of Chronic Diseases* 30:473-475, 1977) even raises the question as to whether

* Actually, the death date was 68, and by exsanguination.

Dear Mr. Fulton!
1, WEST FRANKLIN STREET.
Dear Fulton
My Dr. Ely
+ dinner at 7. pm. I
have a few medical
friends coming to meet
to the table of London
Yours W.O.

Figure 1. Dinner invitation from Doctor Osler to Doctor Frank T. Fulton (1904).

Osler's "harmless obsession" of 1905 can be blamed for "our current youth-obsessed culture with its 45 year olds almost officially dubbed 'has-beens,' and its 65 year olds . . . considered 'never-were'!"

Osler was "sorely hurt" by the distortions of the lay press and misinterpretations by the general public of his remarks. He sent a statement to the newspapers throughout North America on February 26, which read in part, "I have been so misquoted in the papers I haste to make the following statement — I did not say that a man at 60 should be chloroformed. . . . My conviction (still is) that the telling work of the world has been done by men under 40 years of age."

Osler continued to maintain his interest and concern about Doctor Ely in letters to Fulton, and to Doctor G. Alder Blumer. Thus, in Fulton's account of a memorable day in Boston with Osler on December 26, 1905, Osler "asked very particularly about Doctor Ely."

On Friday, April 27, 1906, there was a remarkable banquet in Providence, reported in full in *The Providence Medical Journal* (July 1906, pp. 131-143), and extensively at the time in the local press. This was on the occasion of Doctor Ely's sixtieth anniversary in practice (April 1846-April 1906). It was attended by prominent guests — indeed the roster was a veritable "Who's Who" of Rhode Island notables, and of physicians from the Boston area.

Doctor Ely (Brown 1842, Harvard Medical School 1846) delivered a lengthy reminiscence, which was essentially the history of medical practice in New England over the previous 60 years. Included is a description of the Harvard Medical School during his student days, as a "dark dingy place only fit for stables. . . . You have only to contrast this place with the marble buildings now being erected to form a correct opinion of the difference." Oddly, Doctor Ely makes no mention of a fact, later recorded in his obituary, that he witnessed the first public demonstration of ether anesthesia in 1846, and was invited to attend the semicentennial celebration.

In the painted version by Hinckley of that event hanging in the Countway Library lobby, actually an artistic reconstruction painted in 1882-93 (Vandam L: *Anesthesiology* 52:70, 1980), there are shadowy figures of unidentified observers on the benches, and who is to gainsay that Doctor Ely is represented?

The first presentation in the program was a letter from Sir William Osler, from which these pertinent excerpts are taken:

Oxford, England
April 10, 1906

Dear Dr. Ely:

Allow me to join in the joy of your colleagues that you have been spared so long to grace the profession which we love and in which you have been so devoted a worker. . . . Setting at naught both the psalmist and the preacher you have taught us that the strength of old age may be neither labor nor sorrow and the silver cord retains its tenseness. What a satisfaction it is to have reached the rare reward vouchsafed to so few — the frosty yet kindly old age and all that should accompany it, with at the same time a mental and bodily vigor that makes you still a notable figure in our midst.

Then came classical allusions of which Osler was so fond, and more expressions of how adaptability can come with age.

The letter concludes:

You may remember one evening at dinner I taxed you with having written sonnets. It was dullness that made me suggest it. I should have known better. You have written man's best poem — the epic of a life full of human spirit, a poem which your friends know by heart and which will remain as a precious memory long after you have crossed the bar.

Sincerely yours,
William Osler

This tribute to old age (Cushing stated it was unsolicited) — and the graceful apology — represent Osler's most expressive and sentimental prose.

Although Osler made no reference to the vituperations still rankling from the *Fixed Period* episode, it is significant that Cushing records this letter in the section devoted to the *Fixed Period*. It would thus appear that in addition to a genuine tribute to Doctor Ely he intended to refute the unwarranted assumption of antagonism towards the elderly.

In the preface to the second edition of *Aequanimitas* dated July 1906 — three months later — Osler included a reference to the *Fixed Period*: "To one who had all his life been devoted to old men, it was not a little distressing to be placarded in a world-wide way, as their sworn enemy, and to every man over sixty whose spirit I may have thus unwittingly bruised, I tender my heartfelt regrets."

He did, however, conclude, "after the sixtieth year it would be best for the world and best for themselves if men rested from their labours."

Even if Osler did not intend his letter to Doctor Ely as his second public answer to the *Fixed Period* criticism, the lay press did. *The Providence Journal* news story of April 28, 1906 printed the letter in

full, and the subheadline was "Osler refutes own theory."

Equally indicative was an editorial comment headlined "Osler's Tribute to Old Age" in the Springfield (Massachusetts) *Sunday Republican* of April 29, 1906, preceding the text of Osler's letter. After referring to Doctor Osler's "melancholy experience" and "tale of woe," the editor felt "it is not out of place to present Doctor Osler in this new attitude which surely does him ampler justice."

Doctor R. Palmer Howard unearthed a reprinting of the *Republican* article in the *Daily Oklahoman* of June 5, 1906. I have not attempted to trace other newspaper coverage, but it appears to have been widespread.

On May 7, 1906, nine days after the banquet, *The Providence Journal* had another headline, "Dr. Ely Dead." On the Monday after the banquet Doctor Ely had had a stroke and died five days later.

Osler wrote Fulton on May 18 from Oxford, "I am very much distressed to hear of dear Doctor Ely's death. Still, it is perhaps just as well, as he doubtless has been spared a lot of trouble. Express my sympathies to the family."

Osler died on December 29, 1919, aged 70 and 5 months. The final decade of his life after the literal deadline of the *Fixed Period* was a demonstrable contradiction to his prior statement. His activities during that time occupy 500 pages of Cushing's biography! He continued to make important contributions as Regius Professor of Medicine at Oxford, to lecture widely, to write prolifically, and to occupy important posts — medical, administrative, and scholarly.

In summation, the initially unpleasant teasing episode at the Friday Night Club was truly providential.* To Doctor Ely it led to an experience which he regarded as the "best time" of his long life; and to Doctor Osler it became an opportunity to refute, in superb poetical prose, the allegations that he was prejudiced against the elderly, and that life after 60 was necessarily unproductive.

* "Lucky, fortunate, happy" from Webster's *Dictionary of Synonyms*.

Diabetes Mellitus — Practical Aspects

Serial Determination of Plasma Insulin Levels Is Useful Method of Determining Type of Diabetes

Frank M. D'Allessandro, MD

An attempt was made to decide on the management and therapy of a small group of adult onset diabetics by using the normal standard criteria, as well as plasma insulin levels obtained at assigned intervals. The patients were all new onset diabetics, ranging in age from 24 to 64. The patients studied were all previously untreated, especially not with insulin, as most insulin assays depend on an insulin antibody survey.

In each of these cases, the plasma insulin levels were obtained at assigned intervals and were matched with glucose levels. On the basis of either clinical criteria or levels of insulin serum immunoassay levels, a therapy was assigned.

Diabetes mellitus can be defined as a metabolic derangement in carbohydrate homeostasis and may represent a heterogeneity of diseases that share hyperglycemia as the common symptom; in this study pertinent other abnormalities are also noted.

The following nomenclature has been assigned to diabetics in this study and warrants elaboration:

Type I Diabetics — ketosis prone, insulin dependent, and usually of explosive onset, repre-

senting 5 to 20 per cent of the population, very often found in children or adolescents.

Type II Diabetics — usually ketosis resistant, not necessarily insulin dependent, thought to have been of gradual onset, and comprising 80 per cent of the present diabetic population (Adult Onset Diabetes Mellitus — AODM), but may occur as early as age 10 (Maturity Onset Diabetes of Youth — MODY).

The practical consideration, however, is that in an adult population, especially in patients ranging in age from 30 to 40, reliance is placed mostly on clinical judgment as to classification and eventual therapy. Many adult onset diabetics who have appeared with initial high levels of glucose have been begun on insulin, and too frequently poor results have been obtained because of inability to change lifestyle, inability to follow diet, or other factors. The classification becomes more important, therefore, in that if a Type I diabetic is not given insulin, no matter what else occurs, the result will be poor. This is also true for those Type II diabetics who have circulating endogenous insulin levels at a normal or high range, but whose insulin and cellular receptor sites have been altered and thus have created a relative insulin action abnormality.

Materials and Methods

Standard plasma glucose determinations were obtained by the glucose oxidase method at the St. Joseph Hospital laboratory testing unit, Providence, Rhode Island, or at the New England

Frank M. D'Allessandro, MD, is in the private practice of endocrinology, Wellesley Medical Building, North Providence, Rhode Island.

Table 1. Management of twelve Type I Diabetics.

Pt.	Onset Age & Category	Diagn F	Glucose hrs.			Immunassay mcU/ml Insulins hrs.					Misc. Lab Tests	Comment
			1	2	3	F	1/2	1	2	3		
♂ 1	46 I	544	552	496	444		2	3	7	2	Pos. ANA 1:250	Fasting glucose 198, 3-hr. glucose 111 on 26 units U/100 Lente Insulin
♀ 2	48 II	455	363	355	310			59	35	24	TSH 11.5 T4 5.4	FBS 124 Rx Tolinase 100 & Thyrolar I
♀ 3*	47 ?I or ?II	447	474	369	482	12	27	28	13	10	TSH 53.5 T4 3.0	FBS 160 Rx 24 Units U/100 Lente & Thyrolar II*
♀ 4	60 II	570	397	389	358	22	25	26	33	42		2 hr. glucose 137 Rx Tolinase 250 & 1,000 calories
♂ 5	38 I	304	342	440	456	10	10	14	11	14		FBS 75 Rx 25 Units Lente & Diet
♀ 6	64 ?II	359	444	372	331	7		14	19	12	T4 14.2 TSH 4.4 Free T4 1.1	FBS 193 Rx Tolinase 100
♂ 7**	24 ?I or ?II	645		240	243	35.9					Insulin antibodies pos. 12%	Rx Insulin 25 units ↓ 10 units
♀ 8x	33 **	97	178	160	137	25	77	160	150	36	Insulin AB pos.17% 5 Min. post Glucagon 1mg IM	Diet alone
♀ 9	66 II	282	424	482	602	12.2	12.6	37	23.9		TSH 23.2 Silicoses of lungs	Diet and Tolinase 250mg/day
♀ 10	55 II	88	275	113	85	5	24	36	45		Diet only	Followed only
♂ 13	34 II	242	340	361	386			41	14	23	Diet only	Glucoses mg/100 FBS 132; 151
♀ 14	47 ?I or ?II	350	526	616	562	5	6	13	17			Diet & Tolinase 100 Tolinase 250/day Glucoses 250; 287mg fasting

xhyperinsulinemia - pancreas normal appearing by surgical exploration.
*blunted response for levels glucose observed--long-term follow. Insulin stopped. Tolinase 50mg/day
**begun insulin 25 units lente U100---15 units---Tolinase 100mg

Table 2. Management of two Type II Diabetics.

♀ 11	61 ?II	316	344	302	Wt. 223 lbs.	213 lbs.		Glucoses 250-291mg on Lente Insulin & Tolinase 100
♂ 12	46 ?II	341	298		Wt. 207 lbs.	230 lbs.	182 lbs.	F. glucose 195mg on Insulin & Tolinase 100

The author acknowledges Mr. Alan Poon of the Rhode Island Department of Health, Division of Illustration, for his assistance in preparing the Tables.

Medical Laboratory. The insulin assay was performed either by Smith-Kline Laboratories, Waltham, Massachusetts or the New England Medical Laboratories, Holliston, Massachusetts. A radioimmunoassay insulin antibody method for insulin assay was used. Urines were checked either by Ames' Combistix® or Keto-Diastix®, or by Lilly's Tes-Tape®. A standard American Diabetes Association (ADA) diet was employed using 45 ± 5 per cent carbohydrates, 35 ± 2 per cent fats, and 20 ± 2 per cent protein.

The group of diabetics shown in Table I ranged in weight from normal to definitely obese.

After serial plasma insulin levels were drawn, the first phase of treatment, lasting from one to three days, or until the plasma insulin levels were reported, or both, was begun, initiating the accepted diabetic teaching course. This course consisted of strict adherence to, and understanding of, diet; a hypocaloric diet using familiar and available foods, gradual weight reduction, and a realistic caloric level, which would discourage cheating after the patient assumed his own care. General diabetic instruction included foot care, general management, hygiene, daily weighing, recognition of hypoglycemia, and injection of insulin. An exercise program consisting of walking a measured distance three times daily was insisted upon in order to increase muscle utilization of glucose and thereby in classic Type II patients reduce plasma insulin levels.

After 24 to 72 hours of this regime, patients were begun on either insulin or sulfonyl urea therapy. The choice was based upon either levels of insulin or clinical signs, such as the presence of ketosis or other clinical criteria signaling a Type I insulinopenic or ketosis-prone diabetes. The results in all cases were very satisfactory in the initial stage (Table I). The care of the Type I diabetics requiring insulin was then continued in the generally accepted manner.

The management of Type II diabetics emphasized weight loss by hypocaloric diet, exercise, and the use of sulfonyl ureas — all intended to reduce circulating plasma insulin levels and the "down-regulation" of insulin receptors, to be discussed later.

Two patients who were studied proved to be typical maturity onset diabetics, but had previously been poorly controlled on insulin and diet (Table II).

Discussion

Many ketosis resistant diabetics, both lean and obese, have increased fasting plasma insulin concentrations and decreased insulin binding. The

binding of insulin to its plasma membrane receptor is the critical first step in insulin action. The binding of insulin depends on the total number of available receptors (binding capacity) and the affinity or avidity of the hormone receptor interaction.

One current hypothesis is that the diminished binding of insulin in Type II diabetic patients is related not only to the down-regulation of the insulin receptors, but may also cause abnormalities of carbohydrate metabolism. This is frequently associated with obesity, with further reduction of insulin action, and increased levels of circulating endogenous plasma insulin. A vicious cycle occurs and is usually progressive.

There is an inverse relationship between the concentration of insulin to which a tissue has been exposed and its subsequent ability to bind insulin. The decrease in insulin binding associated with high insulin levels is termed down-regulation. The common example of this is obesity. Conversely, increased insulin binding associated with diminished insulin concentrations is termed up-regulation. Two examples of this are fasting and insulinopenic diabetes mellitus induced in animals by destruction of pancreatic beta cells.

Treatment of ketosis-resistant diabetics by either diet or sulfonyl urea agents has been associated with an increase in insulin binding. Within 10 to 12 days of starting a hypocaloric diet, monocytes from obese diabetics show increased binding *affinity*. After several weeks, the increased insulin binding is also associated with an enhanced total binding *capacity*. In contrast, therapy with sulfonyl urea agents on either a short-term or long-term basis is associated with increased insulin binding *capacity*. Thus, treatment with both diet and sulfonyl urea agents causes enhanced insulin sensitivity and increased insulin binding. Because of the inconsistent relationship between insulin binding and insulin action, the question of whether these increases in binding associated with therapy cause the improvement in diabetic control requires further study and elaboration.

Most plasma insulin levels in our patients were higher than normally expected when matched with the plasma glucose levels. The possibility that sulfonyl urea agents improved insulin sensitivity by altering insulin binding was first explored by Olefsky and Reaven.¹² They found that monocytes from diabetics bound significantly less insulin than monocytes from non-diabetics, but insulin binding was restored to normal by one to three months of therapy with chlorpropamide.

An attempt will be made eventually to repeat insulin levels on all of our patients. However, the aim of the study was to determine the type of diabetes present and to initiate appropriate therapy in the shortest period of time with a maximal response. In all cases, the response was characteristic.

Finally, in the two cases shown in Table II, the possibility is raised that both of these patients were initially Type II diabetics, with increased levels of endogenous plasma insulin and that the addition of exogenous insulin to their program could possibly be one of the factors which was responsible for the poor control which they exhibited. This was based on the fact that increased levels of insulin promote storage of fats and block gluconeogenesis, as well as induce translocation of glucose into cells. In these cases the level of insulin administered was drastically reduced, while sulfonyl ureas were added, the insulin and sulfonyl ureas being used concomitantly. In both instances an effort was made to maintain constant all other factors or instructions. They were then able to follow diet in a more compliant manner. In Case 12, lost to follow up for 7 months, poor diet habits were resumed, although insulin dosage was maintained at a constant level. When sulfonyl ureas were resumed, fasting blood glucose and daily blood glucose levels decreased, resulting in weight loss and better compliance with diet. Thus, cheating by some patients may not be entirely their own fault.

Conclusions

It is evident that impairment of both insulin secretion and action occur in patients with diabetes mellitus and that the differentiation of Type I from Type II diabetics requires skill and clinical judgement. In those patients with Type II (AODM) diabetes, where metabolic abnormalities have occurred as a result of impairment of insulin action and a change in insulin receptor effectiveness, an attempt was made to detect these abnormalities early by the use of serial plasma insulin determinations and to correct them promptly by the use of diet, exercise, and, where necessary, insulin or the sulfonyl ureas (chlorpropamide or tolazamide), or both. The clinical response is the result of the interaction of many variables. A practical approach has been taken, using the most cost-effective methods to achieve the optimum long-term results. Many questions remain unanswered. Long-term followup of these patients may well prove that the addition of low doses of insulin to the above regime is neces-

sary.

In at least two of our patients the correct classification was not at first evident and was somewhat surprising to this observer. The finding of positive insulin antibodies in Cases 7 and 8 was also unexpected. In these latter cases no evidence of surreptitious insulin administration was detected even after exhaustive checking.

This study suggests that the use of an immunoreactive insulin curve together with glucose determinations will further refine the differentiation of Type I and Type II diabetics. The use of sulfonylureas in the treatment of Type II diabetics perhaps should have wider application. The methods used in this study are generally available to the average physician in the Rhode Island area.

References

- 1 Reaven G, Miller R: Study of the relationship between glucose and insulin responses to an oral glucose load in man. *Diabetes* 17:560-569, Sep 68.
- 2 Savage PJ, Dippe SE, Bennet PH, et al: Hyperinsulinemia and hypoinsulinemia. Insulin responses to oral carbohydrate over a wide spectrum of glucose tolerance. *Diabetes* 24(4):362-368, Apr 75.
- 3 Zimmet P, Whitehouse S, Alford F, et al: The relationship of insulin response to a glucose stimulus over a wide range of glucose tolerance. *Diabetologia* 15(1): 23-27, Jul 78.
- 4 Reaven GM, Bernstein R, Davis B, et al: Nonketotic diabetes mellitus: Insulin deficiency or insulin resistance? *Am J Med* 60(1):80-88, Jan 76.
- 5 Soll AH, Kahn CR, Neville DM Jr, et al: Insulin receptor deficiency in genetic and acquired obesity. *J Clin Invest* 56(4):769-780, Oct 75.
- 6 Archer JA, Gorden P, Roth J: Defect in insulin binding to receptors in obese man. Amelioration with calorie restriction. *J Clin Invest* 55(1):166-174, Jan 75.
- 7 Olefsky JM, Reaven GM: Decreased insulin binding to lymphocytes from diabetic subjects. *J Clin Invest* 54(6):1323-1328, Dec 74.
- 8 Olefsky JM, Reaven GM: Insulin binding in diabetes. Relationships with plasma insulin levels and insulin sensitivity. *Diabetes* 26(7):680-688, Jul 77.
- 9 DeFronzo R, Diebert D, Hendler R, et al: Insulin sensitivity and insulin binding to monocytes in maturity-onset diabetes. *J Clin Invest* 63(5):939-946, May 79.
- 10 Beck-Nielsen H: The pathogenic role of an insulin-receptor defect in diabetes mellitus of the obese. *Diabetes* 27(12):1175-1181, Dec 78.
- 11 Lebovitz HE, Feinglos MN, Bucholtz HK, et al: Potentiation of insulin action: A probable mechanism for the antidiabetic action of sulfonylurea drugs. *J Clin Endocrinol Metab* 45(3):601-604, Sep 77.
- 12 Olefsky JM, Reaven GM: Effects of sulfonylurea therapy on insulin binding to mononuclear leukocytes of diabetic patients. *Am J Med* 60(1):89-95, Jan 76.
- 13 deFronzo RA, Soman V, Sherwin RS, et al: Insulin binding to monocytes and insulin action in human obesity, starvation, and refeeding. *J Clin Invest* 62(1):204-213, Aug 78.
- 14 Shuman CR: Sulfonylurea therapy in the management of Maturity-Onset diabetes. Reprinted from proceedings of a colloquium held in San Francisco, December, 1979: *The Role of Sulfonylureas in the Treatment of Insulin-Independent Diabetes*. New York, Science & Medicine Inc, 1980.

1515 Smith Street
North Providence, RI 02911

Fatal Staphylococcal Septicemia Following Acupuncture: Report of Two Cases

Occurrence of Staphylococcal Septicemia Following Acupuncture Emphasizes Need for Thorough Medical Evaluation Before Such Procedures

Michael G. Pierik, MD

Acupuncture has been used recently in this country in the treatment of a variety of diseases.¹ Its use would not seem to be as popular as it was five years ago. This may be due to a combination of factors: questionable efficacy, unclear therapeutic indications, lack of technique standardization, and more stringent licensing requirements. Therapeutic results in rheumatoid arthritis have been particularly disappointing. Also, there may be complications.² The following case histories indicate one of the dangers of acupuncture if not preceded by a complete medical work-up.

Report of Cases

Case 1. A 58-year-old Polish housewife was admitted to the hospital on May 3, 1978 with complaints of long-standing rheumatoid arthritis, increasing bilateral leg edema, and acute swelling of both knees and ankles for the preceding five months.

The patient's history revealed studies at an out-of-state hospital in 1967 for hypercortisonism secondary to steroid therapy for arthritis. Gold salt therapy at that time caused no apparent side-effects and produced no documented, relief.

Michael G. Pierik, MD, Department of Internal Medicine, St. Joseph Hospital, Our Lady of Fatima Unit, North Providence, Rhode Island.

Thyroid medication was commenced because of a very low protein bound iodine (PBI). Continuity of treatment was not maintained at home. The patient became more withdrawn and received no formal treatment for her arthritis for the next seven years.

In October of 1977, acupuncture was performed at home. The identity of the practitioner was not disclosed, nor were the definite sites of the needle insertions. However, these probably involved locations near the knees and ankles. Following this treatment the patient experienced increased joint swelling and fever. She resisted attempts at medical follow-up. There was no history of alcoholism, drug addiction, rheumatic fever, or diabetes. Similarly, the patient denied recent furuncles, ulcerations, or tooth extraction.

Physical examination revealed, in addition to generalized arthritis, a febrile, confused, malnourished patient with marked anasarca. Petechiae and purpura were noted on the dorsal surfaces of both upper and lower arms. There were no needle "tracks" noted. A small sacral decubitus ulcer was present. The patient was confined to bed because of severe flexion deformities and active arthritis of her knees and ankles. Blood pressure was 80/60 mm Hg. The lungs showed congestive changes at both bases, but heart sounds were fairly strong and regular. The abdominal examination did not reveal hepatic or splenic enlargement.

Initial laboratory studies showed severe derangements with hemoglobin and hematocrit

levels of 8.7 gm and 27 per cent, respectively. Serum carotene was 26.3 mcg; serum iron and binding capacity were 19 mcg and 355 mcg, respectively. Abnormally low values of protein, calcium, phosphorus, ascorbic acid, and cholesterol were also found. Plasma cortisol, folic acid, cyanocobalamin, and screening tests for disseminated intravascular coagulopathy were normal. Cultures from knees, ankles, and blood were positive for hemolytic *Staphylococcus aureus*, coagulase positive.

The patient underwent closed and open drainage of both knees and ankles, appropriate antibiotic therapy, and a long and complicated therapeutic regime in relation to her various metabolic derangements and deficiencies. However, her condition steadily deteriorated, and she expired on the fourteenth hospital day.

Post mortem examination confirmed, in addition to her articular disease, the following: bilateral pulmonary edema, massive ascites, liver cell necrosis, acute renal tubular necrosis, and the fibrotic end-stage of Hashimoto's thyroiditis.

Case 2. A 57-year-old Polish widow was admitted to the hospital on August 25, 1975 with complaints of acute joint swelling and fever. Classical rheumatoid arthritis had been present since 1964. Intermittent treatment with gold salts had kept her functional as a homemaker until early in 1975. At this time she underwent a trial of acupuncture. The type of needle, the sites of insertion, and the identity and location of the practitioner were undisclosed, although she was firm in her statements that needles had been put into her "face and toes" on at least one occasion.

The patient's history also disclosed chronic pancreatic insufficiency secondary to surgery for cancer of the Ampulla of Vater in 1969. This condition had improved with replacement and dietary therapy. There was no history of steroid administration, diabetes, rheumatic fever, or recent tooth extraction. The social history was negative for alcoholism and drug addiction. The patient's difficult personality had blocked attempts at consistent long-term therapy. Following acupuncture her condition steadily worsened with respect to arthritic pain and joint swelling. This was accompanied by high fever, inanition, and general toxicity.

Physical examination on admission showed, in addition to rheumatoid changes, poor nutrition, a blood pressure of 88/60 mm Hg, and an oral temperature of 103°F (39.4°C). Also present on

the great toes were bilateral rheumatoid nodules draining gross pus. Acute inflammation of both ankles and knees was noted. A rectal examination revealed a light yellow, soft, greasy stool. There was a fluctuant abscess of the dorsum of the left hand.

Laboratory findings included repeated positive cultures of hemolytic *Staphylococcus aureus*, coagulase positive, isolated from ankles, knees, great toes, the abscess of the hand, and blood. Various hematological and pancreatic tests showed severe depression of these systems. However, the serum electrophoresis and screening tests for disseminated intravascular coagulopathy were normal.

Treatment included arthrotomy of both knees, intravenous methicillin, and drainage of the abscess. After prolonged intensive therapy, the patient was discharged on the 88th hospital day to a nursing home on a program of oral penicillin. Minor temperature spikes occurred for the next two weeks. At this time the patient suddenly expired after an acute abdominal crisis consistent with peritonitis. Permission for post mortem examination was refused.

Discussion

In Case 1, it may be argued that poor resistance to infection due to hypothyroidism, malnutrition, immunoincompetence, and rheumatic disease were factors in the fatal outcome. The history of varicella late in life would seem to support this. However, the immediate source of infection would certainly be consistent with acupuncture treatments. Similarly, the second patient showed clinical and laboratory evidence of several compromised organ systems, but the evidence of needle-induced sepsis is too strong to ignore.

It is not the intent here to comment on the efficacy of acupuncture in rheumatoid arthritis or other diseases. This will become apparent in time. The cases reported here, however, certainly indicate that a thorough history, physical examination, adequate consultations, and follow-up by a bona fide medical physician should be mandatory. Recent legal trends in this direction are encouraging.³

Summary

Two cases of staphylococcal septicemia following acupuncture are described to illustrate a potential complication. The necessity of thorough medical evaluation before and after such procedures is stressed.

References

- ¹ Moore ME, Berk SN: Acupuncture, placebo, and hypnotic susceptibility. *Arthritis Rheum* (abstract) 53(7):416-417, Jul 75.
- ² Carron H, Epstein BS, Grand B: Complications of acupuncture. *JAMA* 228(12):1552-1554, 17 Jun 74.
- ³ State of Rhode Island and Providence Plantations, General Laws, 1956 as amended, Title 5, Chapter 37.2. The healing art of acupuncture. Rhode Island Board of Acupuncture.
- ⁴ Izatt E, Fairman M: Staphylococcal septicaemia with disseminated intravascular coagulation associated with acupuncture. *Postgrad*

Med 53(619):285-286, May 77.

- ⁵ State of Rhode Island and Providence Plantations. Rules and regulations for the licensing of doctors of acupuncture and acupuncture assistants. Rhode Island Board of Acupuncture, July, 1980.

1623 Broad Street
Cranston, RI 02905

EXPERTS IN OFFICE DESIGN & SPACE PLANNING



National Business Interiors

A Division of National Office Supply Co

36 Branch Ave., Providence, R.I. 02904 (Branch Ave. Exit Rt. 95)
401-274-9000



evening clinic
for alcohol affected families

A state licensed private medical outpatient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.
Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*“To Some People We’re
More Than A Service.”*

HEALTH HAVENS NURSING HOME

East Providence

FOR SALE

Beckman *glucose analyzer* and
Hewlett-Packard Electrocardio-
graph, Model 1500B, in perfect con-
dition. Call 725-2012.

For Sale (Retirement)

Hamilton Pediatric Table
Wood-Oak

Birch Examining Table
Multi-Drawers

Gendron Exam Table

Metal Treatment Table

Assorted Furniture


Call 885-2660 or 885-2686



- | | |
|-----|--|
| 275 | Adult Respiratory Distress Syndrome Occurring after Therapy with Diazoxide and Betamethasone for Premature Labor: A Case Report |
| 279 | Septic Prepatellar Bursitis in a Child |
| 283 | Asphyxic Disease of the Neonatal Kidneys |
| 267 | NEWSLETTER |
| 271 | PRESIDENT'S PAGE |
| 273 | EDITORIAL |

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM[®] _{IV}

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

**BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT**



Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma. may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication. abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500; * Prescription Paks of 50, available in trays of 10; * Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701.

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

***"To Some People We're
More Than A Service."***

Rhode Island Medical Journal

July 1982
Volume 65, Number 7

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman
Stanley M. Aronson, MD
Contributing Editor
Maurice M. Albala, MD
Paul Calabresi, MD
Herbert Fanger, MD
Pierre M. Galletti, MD, PhD

Donald S. Gann, MD
***John F. W. Gilman, MD**
***Edwin J. Henrie, MD**
***Patrick R. Levesque, MD**
Robert V. Lewis, MD
Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**
***P. Joseph Pesare, MD**
***Sumner Raphael, MD**
Henry T. Randall, MD
Joseph Amaral, MD
Resident

OFFICERS

Melvin D. Hoffman, MD
President

Leonard S. Staudinger, MD
Vice President

Milton W. Hamolsky, MD
Secretary

Charles P. Shoemaker, Jr., MD
President-Elect

Kenneth E. Liffmann, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society
Edward F. Asprinio, MD
Kent County Medical Society

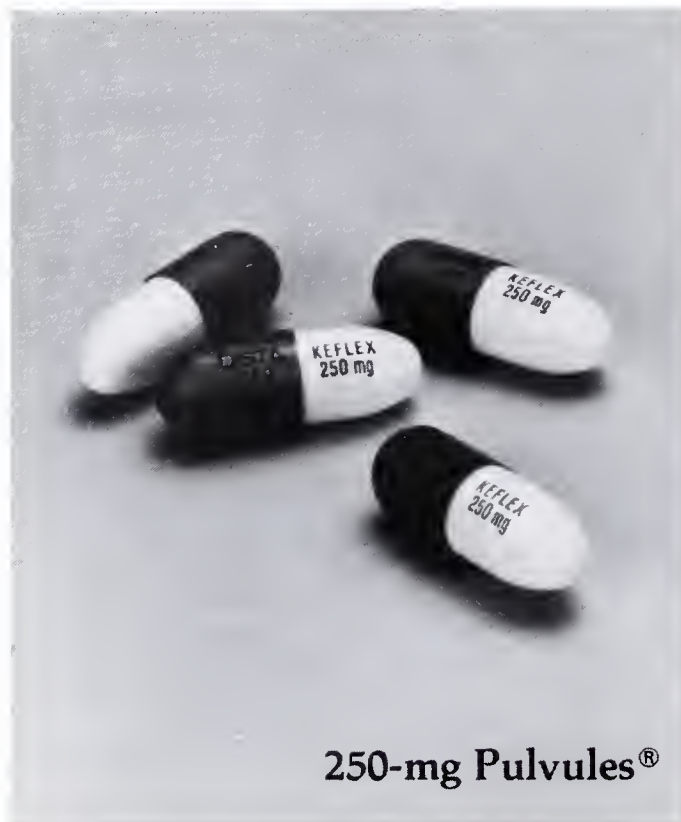
Elie J. Cohen, MD
Newport County Medical Society

Constantine G. Demopulos, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association
Douglas A. Rayner, MD
Washington County Medical Society
Alban J. LeBlanc, MD
Woonsocket District Medical Society



easy to take



Keflex®

cephalexin

Additional information available
to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

TABLE OF CONTENTS

267 **NEWSLETTER**

271 **PRESIDENT'S PAGE**

A Pledge

273 **EDITORIAL**

Consensus Development Conference on Childbirth by Cesarean Delivery

CONTRIBUTIONS

275 **Adult Respiratory Distress Syndrome Occurring after Therapy with Diazoxide and Betamethasone for Premature Labor: A Case Report**

Use of Swan-Ganz Monitoring Is Important in Cases of Pulmonary Edema Not Responding to Usual Therapy

John DiOrio, Jr., MD Robert E. Brauner, MD

279 **Septic Prepatellar Bursitis in a Child**

Differentiation of Septic Bursitis from Arthritis Is Important Because of Prognostic Considerations

Anthony J. Alario, MD Eugene Y. Su, MD George Ho, Jr., MD, FACP

283 **Asphyxic Disease of the Neonatal Kidneys**

Clinical-Pathologic Conference

Andrew Brem, MD Don B. Singer, MD

COVER

The illustration of the Redwood Library, Newport, Rhode Island is from a photo reproduction of an engraving by W. D. Terry of Newport from a drawing by James Stevens. The Redwood Library, erected in 1747, was the site of Rhode Island Medical Society Annual Meetings in alternate years from 1812-1860 and occasionally thereafter.

*A Continuing Medical Education Program of Increasing
Importance to Every Physician in Rhode Island—*

THE EAST'S MAJOR POSTGRADUATE CONFERENCE ON THE

MEDICAL ASPECTS OF SPORTS

**THURSDAY (all day), JULY 15 and FRIDAY (morning),
JULY 16, 1982**

at the Keaney Gymnasium, University of Rhode Island, Kingston.

This annual meeting on Sports Medicine, now in its 17th year, was initiated by the Rhode Island Medical Society. Now co-sponsored by the International College of Surgeons and the University of Rhode Island, the meeting attracts physicians from all parts of the Eastern area.

The program qualifies for 13 credit hours of Category 1 of the Physician's Recognition Award of the American Medical Association, and for 15 credit hours by the American Academy of Family Practice.

**CHECK THE DATES NOW on your summer appointment calendar
for an important visit to cool South County!**

First Class First Aid

In
your
office

In
their
homes

Recommend

NEOSPORIN® Ointment

(POLYMYXIN B-BACITRACIN-NEOMYCIN)

- Broad-spectrum antibacterial
- Handy applicator tip

DESCRIPTION: Each gram contains: Aerosporin™ (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically* (as an adjunct to systemic therapy when indicated), for bacterial infections, primary or secondary, due to susceptible organisms, as in: • infected skin, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, erythema, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and aid wound healing.

CONTRAINDICATIONS: Not for use in the eyes or in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neo-



mycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

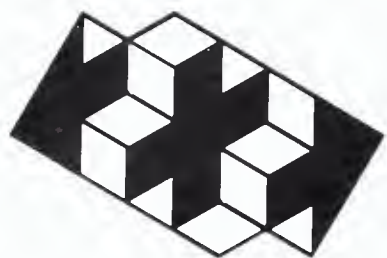
When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



Blackstone Valley Surgicare

Easier for you, nicer for them.

- Same-Day Surgery facilities for general surgeons, gynecologists, plastic surgeons, ophthalmologists, oral surgeons, otolaryngologists, orthopedists
- Managed by physicians with the doctor in mind
- Open staff
- General anesthesia
- Block bookings
- Modern, pleasant environment
- Nursing staff exclusively oriented to the ambulatory surgical patient
- Easy access from Route 95; plenty of parking
- Full Blue Cross and commercial insurance coverage
- Accredited, National Society for Free Standing Ambulatory Surgical Care

Call 728-3800 for more information and bookings.

Blackstone Valley Surgicare, Inc.
333 School Street
Pawtucket, Rhode Island

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn



In the treatment
of insomnia

Good mornings start with restful nights.

Dalmane (*flurazepam HCl/Roche*)
patients fall asleep faster,
sleep longer and seldom awaken
with morning hangover.

Feeling well rested in the morning usually means having slept well the night before. And for insomniac patients receiving hypnotic therapy, a good morning also means awakening with few side effects from their medication. Many physicians choose Dalmane for their patients who suffer from insomnia for this very reason.

Aside from enabling patients to fall asleep more quickly and sleep longer, Dalmane seldom causes morning hangover. Most Dalmane patients feel alert and refreshed when they awaken. In 53 paired-night clinical studies comparing Dalmane and placebo in 2010 insomniac patients with a variety of secondary diagnoses, most Dalmane patients awakened more alert and refreshed, and less groggy and drowsy, than on nights when they had taken only placebo.¹ In a double-blind crossover study of

42 patients in private practice, approximately three times as many patients reported feeling refreshed and alert upon awakening after a night on Dalmane (flurazepam/Roche) compared to placebo nights.² This difference was highly significant ($p < 0.001$). And a retrospective study of 254 hospitalized patients who received Dalmane revealed only a 3.1% incidence of side effects.³

While residual effects from Dalmane therapy are infrequent, patients should be cautioned about drinking alcohol, driving or operating hazardous machinery after ingesting the drug.

Efficacy and safety in a broad range of patient types.

Over 2000 clinical trials involving more than 10,000 patients have shown that Dalmane patients fall asleep sooner, sleep longer and experience fewer nocturnal awakenings.⁴ The safety and efficacy of Dalmane have been demonstrated in medical and surgical hospitalized patients, in patients seen in office practice and in elderly patients.⁵⁻⁸ Since the risk of oversedation, dizziness, confu

sion and/or ataxia increases with larger doses in the elderly, it is recommended that the dosage be limited to 15 mg.

Moreover, the efficacy and safety of Dalmane for the treatment of insomnia have been demonstrated in thousands of patients with a variety of primary medical conditions, including cardiovascular, neuropsychiatric, endocrine-metabolic, gastrointestinal, genitourinary, respiratory and musculoskeletal disorders.¹ Dalmane (flurazepam HCl/Roche) is contraindicated in pregnancy and in patients hypersensitive to the drug.

Avoids rebound insomnia upon discontinuation.

Rebound insomnia—a worsening of sleep beyond pretherapy levels after drug discontinuation—has been reported as a potential clinical problem with some hypnotics.^{9,10} However, this problem has not been reported with Dalmane. In eight out of eight sleep laboratory studies, there were no reports of rebound insomnia.¹¹ When you prescribe Dalmane, you can be confident of efficacy that enhances therapeutic progress. Your insomniac patients can be assured of a restful night, night after night—a good start for a good morning.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 3. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 4. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Meyer JA, Kurland KZ: *Milit Med* 138:471-474, Aug 1973. 6. Feller HL, Gibbons B: *Med Times* 101(8):130-135, Aug 1973. 7. Jacobson A et al: *Psychophysiology* 7:345, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 1978. 10. Kales A et al: *JAMA* 241:1692-1695, Apr 1979. 11. Monti JM: *Methods Find Exp Clin Pharmacol* 3(5):303-326, 1981.

For efficacy from the beginning to the end of therapy

15-mg/30-mg capsules



Dalmane[®] ^{IV}

flurazepam HCl/Roche

stands apart

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

WHY YOU SHOULD MAKE A CORPORATE CONTRIBUTION TO THE AD COUNCIL

The Advertising Council is the biggest advertiser in the world. Last year, with the cooperation of all media, the Council placed almost six hundred million dollars of public service advertising. Yet its total operating expense budget was only \$1,147,000 which makes its advertising programs one of America's greatest bargains... for every \$1 cash outlay the Council is generating over \$600 of advertising.

U.S. business and associated groups contributed the dollars the Ad Council needs to create and manage this remarkable program. Advertisers, advertising agencies, and the media contributed the space and time.

Your company can play a role. If you believe in supporting public service efforts to help meet the challenges which face our nation today, then your company can do as many hundreds of others—large and small—have done. You can make a tax-deductible contribution to the Advertising Council.

At the very least you can, quite easily, find out more about how the Council works and what it does. Simply write to: Robert P. Keim, President, The Advertising Council, Inc., 825 Third Avenue, New York, New York 10022.



A Public Service of This Magazine
& The Advertising Council

The cost of preparation of this advertisement was paid for by the American Business Press, the association of specialized business publications. This space was donated by this magazine.

Newsletter

July 1982

Melvin D. Hoffman, MD, Editor
Karen Challberg, Associate Editor

HEALTH RELATED LEGISLATION PASSED IN 1982 SESSION RHODE ISLAND GENERAL ASSEMBLY

Senate Bills

- 0391 - This act provides for the licensing of prosthetists and prosthetic facilities.
- 2009 - This act allows trained technicians to perform eye enucleations.
- 2018 - This act incorporates the so-called discovery rule now applicable to medical malpractice actions into the Wrongful Death Act so that, if a death is caused by a wrongful act which was not discoverable within 3 years of such death, the statute of limitations would permit recovery thereof within 3 years of the time said wrongful act should reasonably have been discoverable.
- 2070 - This act provides for the licensing of both analytical and clinical laboratories. Additionally, the fee for the licensure will be changed from \$75 annually to \$50 for each specialty for which the lab is approved.
- 2104 - This act gives immunity from liability to any person who, in good faith, reports any abuse of elderly persons to the Department of Elderly Affairs.
- 2181 - This act incorporates technical changes to the State Certificate of Need Law.
- 2246 - This act provides that health care facilities "grandfathered" for purposes of certificate of need shall be required to begin construction within 6 months after passage and substantially complete construction within a reasonable time frame.
- 2304 - This act makes several changes in the limited registration procedure for osteopaths.
- 2314 - This act relates to the management of hazardous waste facilities.
- 2335 - This act prohibits disposal of solid waste over ground water reservoir and recharge areas where the municipality in which they are located are designated as a source of public drinking water.
- 2358 - This act makes several changes in the general law pertaining to the limited registration of physicians.
- 2388 - This act prohibits the sale, delivery, manufacture with intent to deliver, or advertisement of drug paraphernalia.
- 2427 - This act amends the "General Provisions" of the Workers' Compensation Act in their entirety, with the chief change requiring partly disabled employees who are not physically able to do their old jobs to accept "acceptable alternative

employment," if offered, or lose part of their benefits.

- 2435 - This act repeals the present chapter on nurses and enacts a new chapter on licensing and regulating the nursing profession.
- 2478 - This act permits an abused or neglected child to be held in a licensed child care center or facility.
- 2525 - This act provides for informed consent before a woman may have an abortion. The consent must be in writing and follow a statutory form as set out in the act.
- 2535 - This act makes several changes in the general laws pertaining to physical therapists.
- 2544 - This act amends parts of the General Laws entitled Maternal and Child Health.
- 2586 - This act creates a special legislative commission on dementias related to aging.
- 2592 - This act creates a special legislative commission on the cumulative effect of x-ray exposure.
- 2605 - This act requires Blue Cross/Blue Shield and other non-profit hospital and medical service corporations to insure adopted children in family plans without a waiting period, even if such adopted children have a pre-existing medical condition.
- 2728 - This act requires a husband to be notified if his wife is to undergo an abortion.
- 2899 - This act creates a special legislative commission to study the medical, economic and social effects in Rhode Island of matters relating to nuclear warfare.

HOUSE OF REPRESENTATIVES BILLS

- 7147 - This act allows the Department of Mental Health to charge persons committed to their custody--persons that have estates, who have been found incompetent to stand trial, or acquitted on the grounds of insanity--for their care, maintenance, and treatment.
- 7206 - This act raises the tax on a pack of cigarettes from 18¢ to 23¢ per pack.
- 7221 - This act provides for a uniform definition of death.
- 7226 - This act transfers the criminally insane unit of the Institute of Mental Health to the Department of Corrections and requires those incarcerated at the institutions to reimburse the state for medical care if they have the ability to pay.
- 7312 - This act requires nursing homes to accept the payments calculated by the Department of Social and Rehabilitative Services for those patients who have been residents of the nursing home for more than 6 months provided that the patient has paid for at least the first 6 months from their own private funds.
- 7318 - This act increases fines for motor vehicle violations by one dollar, the income to be used by the Health Department to supplement annual fiscal appropriations for emergency medical services.

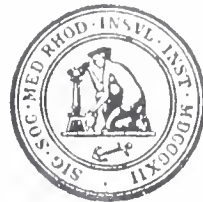
- 7350 - This act requires that the temperature be maintained at 70° in cold months in housing for the elderly as an aid in preventing accidental hypothermia. It also requires the state medical examiner to report all such deaths to the Department of Elderly Affairs. Elderly Affairs is also responsible for public education into the risks of accidental hypothermia.
- 7357 - This bill requires the investigation of prospective adoptive parents and requires the Attorney General's Office to furnish any criminal record of the prospective adoptive parent which would be included in court file.
- 7397 - This act criminalizes and provides a penalty for delivery of non-controlled substances represented as controlled dangerous substances.
- 7442, 7476, 7477, 7489 - These acts, which constitute the Governor's package on drunk driving, increase the penalties for driving under the influence of liquor or drugs.
- 7447 - This act repeals the existing chapter on social workers and replaces it with a comprehensive act covering the licensing of social workers, social work associates, certified social workers, and independent social work practitioners; creating a board of licensing; and setting up examination requirements, academic qualifications, disciplinary and appeal procedures and privileged communications.
- 7467 - This act establishes a two year statute of limitations for members of the armed services who have been exposed to phenoxy herbicides, also known as, agent orange.
- 7484 - This act establishes legal rights for the mentally disabled living in community residences and a procedure to ensure their enforcement.
- 7527 - This act immunizes from civil liability, any person who offers cardiopulmonary resuscitation in the nature of a "good samaritan," so long as the person was trained by the American Heart Association or Red Cross.
- 7560 - This act provides for additional medical direction on the Ambulance Service Coordinating Board, for statewide minimum standards of prehospital emergency medical care, for emergency department nurses to participate as Mobile Intensive Care Unit Nurses, for written orders to be provided for use by advanced medical technicians during communication failures, and for provision of immunity from liability for those involved in prehospital emergency medical services.
- 7596 - This act directs the State Control Agency to publish the clean-up schedule for the United Nuclear plant in Charlestown.
- 7675 - This act requires housing for the elderly with 75 or more tenants to have fire alarm systems connected to a municipal fire department.
- 7683 - This act appropriates \$10,000 for the year ending June 30, 1983 to the Cranston Health Center for the continuation of health services to low income families in the Cranston area.
- 7695 - This act revises the entire chapter on physician assistants providing for registration and supervision.

- 7698 - This act creates a special legislative commission whose purpose is to study Blue Cross Plan 65.
- 7707 - This act extends the time in which mail ballots may be executed by persons within nursing homes, hospitals and the like to 7 days.
- 7768 - This act allows a spouse to be convicted of first degree sexual assault.
- 7803 - This act removes matters from the ambit of the Confidentiality of Health Care Information Act when information is unavailable from any other source and is required for the investigation or prosecution of criminal wrong doing by a health care provider, provided, however, that any information is not admissible in criminal proceedings against the patient to whom said information pertains.
- 7804 - This act makes solicitation or fraudulent acceptance of a kickback or overpayment of a benefit of the Rhode Island Medicaid Program, a felony punishable by a fine of not more than \$5000 or imprisonment of not more than 5 years or both.
- 7898 - This act provides that any Health Maintenance Organization licensed and examined by the Director of Business Regulation which was actively providing health care services prior to 1982 shall be exempt from financial regulations imposed by the licensing agency pursuant to the provisions of this chapter.
- 7942 - These amendments clarify the definitions of facilities and programs to be licensed by the Department of Mental Health, Retardation and Hospitals, change the duration of licenses from one to two years, and increase the minimum capacity before licensing is required from two to three people.

Copies of these and other laws passed by the General Assembly are available from the State House by calling 277-2473.

(Submitted by Brian R. Clarke, Assistant Executive Director)

A Pledge



I was asked, not too long ago, "What is the purpose of the Medical Society?" While many thoughts come to mind, it seems to me the purposes of the Society can be distilled to these two: to protect the self-interest of the physician and to protect the health and welfare of the patient.

Many forces are at work to influence, redefine, limit, and restrict physicians' traditional responsibility, that of using the knowledge and skills of our profession to heal the sick, where we can, and providing comfort and solace to those who cannot be made whole again. In order to do this the profession must advance through the medium of basic and applied research. We must utilize the technology available to us wisely and well; we must remain objective; and we must project warmth, interest, and a caring demeanor.

To do all this, the Medical Society must demand that each of us conform to the ethical standards that have set the boundaries of medicine and the behavior and actions of physicians for generations. I pledge myself to use my office and the honor you have accorded me to attain this goal.

In regard to the patient, we are accorded the privilege of observing and learning the best and worst of an individual's personality and character; to hear his wishes and desires; to listen to tales of needs both achieved and unmet. We are obligated to hold these disclosures in the highest confidence.

If we listen to all of our patients and strive to understand their collective needs, we serve them twice as well. We can treat them individually, and yet we can speak for them as a whole.

In order to speak in the best interests of all patients, a physician must be free and independent. A physician obligated to a healing or educa-



Melvin D. Hoffman, MD

tional institution may be tempted to allow the needs of the institution to take precedence over the needs of patients. In all of our professional activities, we must put the legitimate needs of patients, both as individuals and as a group, above all else. We must join with other groups or patient advocates in pursuing this goal. I reaffirm my pledge to work toward this end to increase the respect and honor in which the physician is held.

These goals cannot be achieved in any particular time frame, nor can they be the private domain of any individual or small group.

I call on all the members and friends of our Society to join with me in this our 170th year to take measurable steps toward these ends.

When, next year, I stand again at this rostrum to give an accounting of my stewardship of the Rhode Island Medical Society, I pray that I may show to the community that we joined hands, worked together, and brought increased respect and honor to the venerable Rhode Island Medical Society.

* As read at the 171st Annual Meeting of the Rhode Island Medical Society held in Newport, Rhode Island on June 2, 1982.

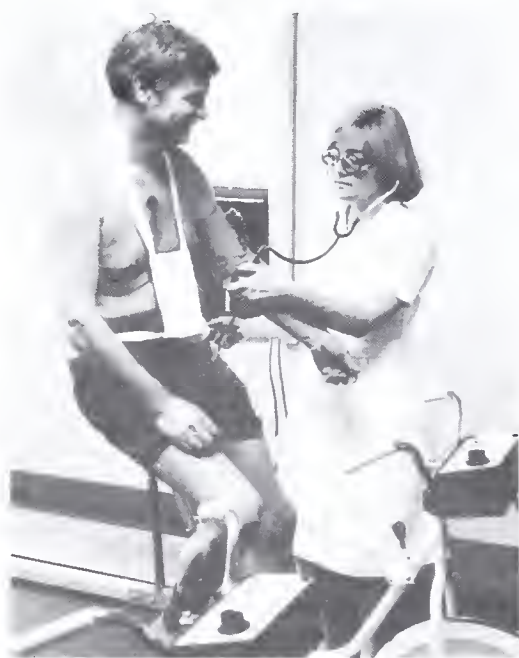
MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500



CARDIAC REHABILITATION

at

THE HEART CENTER

*Exercise Therapy and Comprehensive
Rehabilitation Services for Patients:*

- following myocardial infarction**
- following cardiac surgery**
- with stable angina pectoris**

Each individualized program includes initial exercise test and prescription, medically supervised and ECG monitored exercise sessions, risk factor counseling and education, home exercise program and full report to personal physician on completion.

FIND OUT MORE TODAY BY CONTACTING:

THE HEART CENTER — 274-6777

200 High Service Avenue
North Providence, RI 02904

Consensus Development Conference on Childbirth by Cesarean Delivery

The overutilization or abuse of cesarean section continues to be a matter of discussion in obstetrical circles, as well as among those concerned with the cost of medical care. A National Institutes of Health Consensus Development Conference, held at NIH September 22-24, 1980, which addressed the issue of childbirth by cesarean delivery, has recently come to our attention. The conference was sponsored by the National Institute of Child Health and Human Development, in conjunction with the National Center for Health Care Technology and with the assistance of the Office of Medical Applications of Research, NIH. The NIH Consensus Development Program brings together biomedical investigators, practicing physicians, consumers, and others to carry out scientific evaluations of medical devices, medical or surgical procedures, and drugs. These technologies may be new or in general use.

Following two days of expert presentations and audience comments, the 19-member task force, composed of specialists in a wide variety of medical and nonmedical disciplines, issued a consensus statement. The task force concluded that the rising cesarean birth rate is a matter of concern. The consensus statement reflects the judgment that this trend of rising cesarean birth rates may be stopped and perhaps reversed, while continuing to make improvements in maternal and fetal outcomes, the goal of clinical obstetrics today. The constructive steps that may be taken and goals for further research are summarized in this report.

The nation's high cesarean section delivery rate may be lowered without impeding progress toward reducing maternal and infant mortality and morbidity. The trend of rising cesarean rates may be stopped or perhaps reversed while continuing to make improvements in maternal and fetal outcomes. The US cesarean rate tripled from 5.5 per cent in 1970 to 15.2 in 1978, making cesarean section the tenth most common surgical procedure. Repeat cesarean deliveries are responsible for 30 per cent of the overall rise in

cesarean rates. More than 98 per cent of the women in the United States undergo repeat cesareans for subsequent pregnancies.

Appropriate facilities, services, and staff should be available before attempting labor and vaginal delivery for women who have had a previous cesarean. Hospitals should obtain informed consent before a trial of labor and develop guidelines for the management of those labors. There should not be any changes in practice for elective repeat cesarean delivery by patients who have had a previous classical, inverted T-shape, or low vertical incision, or for whom there is no documentation of the site or type of previous incision.

The diagnostic categories of dystocia, breech presentation, and fetal distress have also contributed to the increasing cesarean birth rate and alternative management may reduce the need for cesarean. Dystocia accounted for 30 per cent of the overall rise in the cesarean delivery rate between 1970 and 1978. Physicians should try alternatives before considering cesareans during this prolonged labor and dysfunction, in the absence of fetal distress. These alternatives include patient rest, ambulation, sedation, or stimulation of labor by using oxytocin.

Breech presentation is responsible for about 15 per cent of the rise in the cesarean rate. Vaginal delivery of the term birth is acceptable when the anticipated fetal weight is less than 8 pounds, pelvic dimensions and architecture are normal, and hyperextension of the head is not present, and when delivery is conducted by a physician experienced in vaginal breech delivery. Although fetal distress is diagnosed more frequently since the use of electronic fetal monitoring has become more common, it occurs only in some one per cent of all births and accounts for 15 per cent of the increase in cesarean rates.

There should be a liberalizing of hospital practices to allow fathers or surrogates to attend cesarean births at the request of the mother, and hospitals should permit healthy cesarean-delivered babies to be with their parents immediately after birth.

If you're disabled, what happens to your earning power?

Think how an unexpected accident or sickness could halt your income at any moment and you'll realize how important Disability Income Insurance can be. Now by applying for this policy, you can assure yourself of steady, continuing income benefits that go to work for you when you're disabled.

This policy is
Endorsed
by:
RHODE ISLAND
MEDICAL SOCIETY

As a member of the Rhode Island Medical Society, you'll get this coverage at a cost less than an individual policy.

For specific information on costs and coverage, write or phone the administrators.

Administered by:
 **LESTER L. BURDICK, INC.**
Loyalty Group Insurance
10 POST OFFICE SQUARE, BOSTON, MA 02109
(617) 426-0020

Local Representative **JAMES M. FIGARA** (401) 434-7091

Underwritten by: **COMMERCIAL INSURANCE COMPANY**, 100 Wood Avenue South, Iselin, New Jersey 08830 • (201) 321-3800

Adult Respiratory Distress Syndrome Occurring after Therapy with Diazoxide and Betamethasone for Premature Labor: A Case Report

Use of Swan-Ganz Monitoring Is Important in Cases of Pulmonary Edema Not Responding to Usual Therapy

John DiOrio, Jr., MD
Robert E. Brauner, MD

During the past several years there has been a growing number of cases reported of pulmonary edema complicating therapy for premature labor. In nearly all of these cases glucocorticoids were used to enhance fetal pulmonary maturity. Various tocolytics were involved, including fenoterol, ritodrine, terbutaline, and magnesium sulfate. The following is a report of a case of adult respiratory distress syndrome occurring with the tocolytic diazoxide.

IE was a 31-year-old black female, G2 PO with an LMP of 1/22/79, who was admitted on 9/4/79 to Women & Infants Hospital of Rhode Island in premature labor at 32 weeks gestational age. The patient had no prior history of medical illness. Her previous pregnancy ended in fetal loss at 22 weeks gestation thought to be due to an incompetent cervix. The current pregnancy had been

marked by the successful placement of a cerclage at 14-15 weeks gestation.

The patient on admission was experiencing three-minute painful contractions. Her temperature and blood pressure were normal, and her pulse was 92 beats per minute.

Pelvic examination on admission showed the cervix to be "effacing," but closed with Mersilene® band in place. The fetus was in a vertex presentation, and the head was floating; membranes were intact. Because a diagnosis of premature labor was made, the patient was treated with the tocolytic regimen utilized at that time. This protocol included preloading with 500 ml of 0.9 per cent saline followed by an 8-10 minute intravenous infusion of 300 mg of diazoxide.¹ The labor pattern was successfully arrested without maternal or fetal ill effects. The patient also received 12 mg of betamethasone intramuscularly, and this was repeated 12 hours later. Approximately one hour after the initial tocolytic therapy, the patient was again given 300 mg of diazoxide to suppress the resumption of labor.

During the ensuing 24 hours, the patient did well and experienced no uterine contractions. Fetal heart tracing was normal, and maternal pulse ranged between 90-110 beats per minute. At approximately 3:00 AM on 9/6/79, the patient was noted to resume uterine contractions and again the diazoxide regimen was employed with satisfactory results.

From the Department of Obstetrics and Gynecology, Women & Infants Hospital of Rhode Island and the Brown University Program in Medicine, Providence, Rhode Island.

John DiOrio, Jr., MD, Clinical Instructor, Department of Obstetrics and Gynecology, Brown University and Women & Infants Hospital, Providence, Rhode Island.

Robert E. Brauner, MD, formerly chief resident, Women & Infants Hospital, Providence, Rhode Island; now in private practice in Tampa, Florida.

At 1:00 AM on 9/7/79, the patient was seen by the resident on duty because of the onset of a "cough." Lungs at that moment were reported as "clear." Three hours later, painful 2-3 minute contractions recurred, and the patient received her fourth and final dose of diazoxide. No note of pelvic examination was made.

At 6:45 AM on the same day, the patient was seen by the authors and noted to be restless and extremely dyspneic. The patient denied chest pain. On examination the patient was noted to have a pulse of 140 beats per minute and a respiratory rate of 40. Temperature was normal. Neck veins were not distended. Cardiac examination showed a regular rhythm with no murmur, S₃, or S₄ found. Scattered coarse crackles were heard bilaterally on auscultation of the lungs. Uterine contractions were regular and palpable, and the cervix was 90 per cent effaced. Initial pO₂ on room air equaled 21 torr, and the pH was 7.29. Follow-up arterial blood gases after vigorous oxygen and Lasix® therapy yielded a pO₂ = 34 torr. Electrocardiogram showed a sinus tachycardia. Chest x-ray examinations showed bilateral fluffy infiltrates and a normal heart size. Hemoglobin was 10.8 gm; potassium equaled 2.9 mEq/liter. Glucose was 208 mg/dl. In view of the tentative diagnosis of severe pulmonary edema, we immediately cut the Mersilene® band on the cervix and labor was allowed to proceed. At 11:04 AM on 9/7/79, the patient delivered under local anesthesia a 1,550 gm female infant appropriate for gestational age with Apgars of 1-5-7 at one, five, and ten minutes respectively.

After delivery, the mother's condition progressively worsened. Repeat cardiogram and chest x-ray studies were unchanged, and despite aggressive therapy for apparent pulmonary edema severe hypoxemia persisted. Three hours post-delivery, the patient was transferred to the intensive care unit at the Roger Williams General Hospital adjacent to our facility.

On admission to the Roger Williams General Hospital intensive care unit, the patient was immediately intubated and assisted ventilation was begun with the use of the positive end expiratory pressures. A Swan-Ganz catheter was passed. Pulmonary capillary pressures were normal and did not rise above 10 mm/Hg. Over the next 2-3 days, the patient required 80-100 per cent inspired oxygen to maintain a pO₂ of at least 60 torr. Broad spectrum antibiotics were utilized initially, but were discontinued after 72 hours when all cultures were found to be negative. Extensive evaluation of the patient gave no hint of intrinsic

cardiac disease or any other clue as to the cause of the patient's severe adult respiratory distress syndrome. The patient gradually improved with continuation of total ventilatory support, and on the eighth hospital day extubation occurred. Twenty-four hours later the patient had a sudden onset of respiratory distress, and because of vocal cord edema required an emergency tracheostomy. Before discharge, the tracheostomy tube could be plugged and finally removed without further incident. The patient was released to her home from Roger Williams General Hospital on 9/22/79.

The course of the baby was somewhat less complicated. Once the newborn reached the special care nursery, intubation was needed due to neonatal respiratory distress syndrome. Maximum oxygen needed was only 40 per cent. On the second day of life the newborn was weaned to continuous positive airway pressure and was breathing on her own on room air by the third day. Subsequently, the baby experienced mild hyperbilirubinemia requiring phototherapy. The baby was discharged home on 10/12/79 at a weight of 2,353 gm.

At the time of this report four months after discharge, both the mother and child are doing well.

Discussion

Diazoxide is a potent, rapidly acting anti-hypertensive agent which exerts its hypotensive effect by direct relaxation of arteriolar smooth muscle. It also has a direct relaxation effect on the gravid uterus.² At Women & Infants Hospital of Rhode Island we had utilized this drug quite successfully as our tocolytic agent of choice from 1975 until ritodrine became available in 1980.¹ Our case report represents a rare and serious complication associated with the use of diazoxide at our hospital.

A series of cases has now been reported in which the combination of a tocolytic agent and corticosteroids resulted in pulmonary edema in otherwise healthy pregnant females in premature labor. Fenoterol, ritodrine, terbutaline, and magnesium sulfate have all been implicated in this potentially life-threatening complication.³⁻⁸ These tocolytics either directly or indirectly cause an increase in heart rate, stroke volume, and cardiac work. Widespread decrease in peripheral vascular resistance often associated with sodium retention is also seen. In the papers previously published, the majority of patients also exhibited the following: anemia, hypokalemia, fluid over-

load, and steroid administration. In only one of the patients discussed by previous authors was Swan-Ganz monitoring employed. This patient clearly had changes consistent with pulmonary edema, ie wedge pressure equaled 30 torr.⁶

Our patient presents certain notable similarities with those previously reported. Diazoxide causes reflex changes in heart rate and stroke volume identical to those of other tocolytics. Sodium retention and fall in peripheral resistance is also marked when this drug is employed. The patient also received steroids and experienced anemia, hypokalemia, and significant fluid overload.

In one major respect, however, our patient differed from others — she did not exhibit any evidence of left ventricular failure and pulmonary edema. Her pulmonary capillary pressures were always in the normal range, while she exhibited severe hypoxemia unresponsive to high levels of inspired oxygen. This, by definition, represents adult respiratory distress syndrome.⁹ To make the distinction between the two entities is critical, and Swan-Ganz monitoring is essential in accomplishing this task.

The explanation for what occurred in our patient must remain speculative, and various theories have been adequately outlined by previous authors. The management and outcome of our patient serves to remind us of a number of essential clinical points. In dealing with any tocolytic agent there must be a clear appreciation of the need for careful cardiopulmonary physical examination, accurate fluid intake/output measurements, and thorough evaluation of the patient's electrolyte status. Finally, the case points up the key role that Swan-Ganz monitoring plays in any patient when the usual therapy for suspected pulmonary edema is not successful. Use of the central venous pressure catheter in this setting will too often be misleading and cause valu-

able loss of time in instituting appropriate patient care.

Summary

A patient is presented with severe adult respiratory distress syndrome complicating therapy for premature labor. The tocolytic used was diazoxide. This is the first known report of such a complication occurring with this agent employed for premature labor. The discussion centers upon the similarities and differences between our patient and others reported as experiencing cardiopulmonary difficulties as a complication of various tocolytic regimens. The critical role of Swan-Ganz monitoring is stressed.

References

- ¹ Bert JJ: Tocolytic properties of diazoxide, presented at the Fifth International Conference on Birth Defects, Montreal, Quebec, Canada, August, 1977 (abst 190).
- ² Gilman AG, et al (eds): Goodman & Gilman's The Pharmacologic Basis of Therapeutics, ed 6. New York, MacMillan, 1980, pp 801-803.
- ³ Tinga DJ, Aarnoudse JG: Postpartum pulmonary edema associated with preventive therapy for premature labor. *Lancet* 1 (8124):1026, 12 May 79.
- ⁴ Elliot HR, Abdula U, Hayes PJ: Pulmonary oedema associated with ritodrine infusion and betamethasone administration in premature labor. *Br Med J* 2(6140):799-800, 16 Sept 78.
- ⁵ Jacobs MM, Knight AB, Arias F: Maternal pulmonary edema resulting from betamimetic and glucocorticoid therapy. *Obstet Gynecol* 56(1):56-59, Jul 80.
- ⁶ Elliott JP, O'Keeffe DF, Greenberg P, et al: Pulmonary edema associated with magnesium sulfate and betamethasone administration. *Am J Obstet Gynecol* 134(6):717-719, 15 Jul 79.
- ⁷ Stubblefield PG: Pulmonary edema occurring after therapy with dexamethasone and terbutaline for premature labor: A case report. *Am J Obstet Gynecol* 132(3):341-342, 1 Oct 78.
- ⁸ Katz M, Robertson PA, Creasy RK: Cardiovascular complications associated with terbutaline treatment for preterm labor. *Am J Obstet Gynecol* 139(5):605-608, 1 Mar 81.
- ⁹ Andersen HF, Lynch JP, Johnson TR: Adult respiratory distress syndrome in obstetrics and gynecology. *Obstet Gynecol* 55(3):291-295, Mar 80.

John DiOrio, Jr., MD
One Randall Square
Providence, Rhode Island 02904

THE ARMY NEEDS PHYSICIANS PART-TIME



**THE
ARMY RESERVE
OFFERS:**



- Funded CME's
- Flexible hours and locations
(as not to interfere with your practice)
- Non - contributory retirement annuity
- Affiliation with the largest comprehensive health care system in the world
- A chance to broaden your medical expertise

CALL COLLECT
(203) 525-2616

or return coupon to:

 ★ AMEDD Personnel Procurement
 ★ FOB, Suite 532
 ★ 450 Main Street
 ★ Hartford, CT 06103
 ★ Name: _____
 ★ Specialty: _____
 ★ Address: _____
 ★ Business Phone: _____
 ★ Home Phone: _____
 ★ Best Time to Call: _____
 ★ *****



**ARMY RESERVE.
CARE FOR YOUR COUNTRY.**

Septic Prepatellar Bursitis in a Child

Differentiation of Septic Bursitis from Arthritis Is Important Because of Prognostic Considerations

Anthony J. Alario, MD
Eugene Y. Su, MD
George Ho, Jr., MD, FACP

Septic bursitis is a common condition in adults and has been the subject of several recent reports.¹⁻⁴ Septic bursitis in children has been mentioned in the orthopedic literature,⁵⁻⁶ but important clinical features, predisposing factors, laboratory findings, and therapeutic aspects have received little emphasis. We report a case of septic prepatellar bursitis in a 6-year-old boy who presented with many features typical of the adult disease and who was successfully managed with medical treatment.

From the Department of Pediatrics and the Department of Medicine, Rhode Island Hospital; and the Rheumatology Section of the Medical Service, Veterans Administration Medical Center, Providence, Rhode Island.

Anthony J. Alario, MD, resident in pediatrics, Rhode Island Hospital, Providence, Rhode Island.

Eugene Y. Su, MD, formerly staff physician, Rheumatology Section, Veterans Administration Medical Center, Providence, Rhode Island.

George Ho, Jr., MD, FACP, assistant physician, Department of Medicine, Rhode Island Hospital; Chief, Rheumatology Section, Veterans Administration Medical Center; Clinical Assistant Professor of Medicine, Brown University Program in Medicine, Providence, Rhode Island.

Case Report

JB, a previously healthy six-year-old boy, was admitted to the Rhode Island Hospital on July 27, 1979 because of the acute onset of fever and unilateral knee pain. Four hours prior to admission, he felt left knee pain, and his parents noticed that the knee was swollen, warm, and tender to touch. On close questioning, three weeks prior to admission he had scraped the skin overlying his left knee from a fall. Two weeks prior to admission he had scratched an insect bite on his left leg causing it to become excoriated and to drain purulent material.

On admission, he appeared comfortable sitting in bed. His temperature was 39.9°C (103.8°F) rectally. The left knee was warm and tender to touch. The prepatellar area was markedly swollen with a surrounding cellulitic reaction. Full extension of the knee was painless, but flexion beyond 100° was accompanied by pain in the anterior aspect. A crusted impetiginous skin lesion with purulent drainage was present on the anterior tibial surface, approximately one-third of the way down the left leg. A well-healed scar above the patella remained from the skin abrasion. Multiple small non-tender inguinal lymph nodes were palpated bilaterally. The remainder of the physical examination was unremarkable.

Admission laboratory data were hemoglobin 12.0 gm, hematocrit 35.5 per cent, white-cell count 12,700 with 68 per cent neutrophils, and

erythrocyte sedimentation rate (Westergren) 15 mm per hour. Roentgenograms of the left knee revealed soft-tissue swelling without abnormalities of the bones or joint.

Arthrocentesis of the left knee was performed initially and yielded no fluid. Needle-aspiration of the prepatellar bursa was then performed and two milliliters of purulent fluid were obtained. The Gram-stained smear of the bursal fluid showed many polymorphonuclear cells with numerous Gram-positive cocci. Three sets of blood cultures were obtained, and parenteral penicillin G was administered. The blood cultures remained sterile, and Group A beta-hemolytic *Streptococcus* was isolated from the bursal fluid and the impetiginous leg lesion.

By the third hospital day, the patient became afebrile with resolution of the peribursal erythema and decrease in the bursal swelling and tenderness. After discharge on the seventh day, oral antibiotic therapy was continued to complete a ten day course. Examination of the knee one

week after discharge revealed residual swelling of the left prepatellar bursa (Fig 1) without heat or tenderness. Repeat bursal aspiration yielded a scant amount of fluid, which was sterile on culture. The knee was completely normal on follow-up five weeks later.

Discussion

Septic bursitis of the superficially located bursae about the olecranon, prepatellar, and infrapatellar areas is a common condition in adults. Other conditions that mimic septic bursitis include cellulitis, septic arthritis, and nonseptic bursitis. A careful history and physical examination will differentiate bursitis per se from the other conditions. Bursal aspiration with proper analysis of the fluid is necessary for the accurate diagnosis of septic bursitis.

In adults, a history of trauma ranging from isolated to repeated injurious events is often elicited and occupational predispositions (eg garden-



Figure 1. Photograph of JB's knees taken on follow-up visit after discharge from hospital. The left knee shows the characteristic swelling of prepatellar bursitis.

ing, carpentry, roofing, and carpet laying) are present with equal frequencies in patients with septic as well as nonseptic bursitis.^{2, 7} In the present case, recent trauma with skin abrasion of the knee had, indeed, occurred. The introduction of the infecting organism in septic bursitis is believed to result from local invasion through the skin rather than hematogenous dissemination.² In this case, the infected excoriation on the leg, the recent knee abrasion, and the negative blood cultures support this hypothesis.

Four major physical findings commonly accompany septic bursitis in adults: fever, bursal swelling and tenderness, peribursal cellulitis, and overlying or distal skin lesions.^{2, 7} Our patient showed all these features. The inflamed bursa is usually red, warm, tender, and distended with a surrounding area of cellulitis, and yet the range of motion of the adjacent joint is usually preserved except at full flexion or extension, where pain may result from stretching or compression of the overlying inflamed soft tissue. By contrast, in septic arthritis, the inflammation generally envelops the entire joint, and the motion is severely limited by pain. Our patient's knee range of motion (painless between 0° to 100°) is more consistent with bursitis. One must be alert, however, to certain physical findings that can occur in this setting. Sterile sympathetic effusion in a neighboring joint or an adjacent fascial space has been described secondary to septic bursitis.⁷ Furthermore, in some instances, the bursal swelling may be masked by the surrounding peribursal inflammation such that an erroneous diagnosis of cellulitis or arthritis is made. If the history points to the bursa as the initial site of inflammation and if a careful joint examination is performed, then aspiration of the bursa will reveal the source of the infection.

Analysis of the bursal fluid is necessary to diagnose septic bursitis. A high leukocyte count with predominance of polymorphonuclear cells and a depressed glucose level (less than 50 per cent of the serum value) suggest the presence of infection, which can be confirmed by Gram-staining and culturing the fluid.⁷ Our patient's infection was caused by a Group A, beta-hemolytic *Streptococcus*, the second most common organism seen in adult septic bursitis.² *Staphylococcus aureus* is the most common bacterium isolated, and approximately 80 per cent of the strains are resistant to penicillin.^{2, 7}

In adults, we have observed that (a) delayed diagnosis and treatment of infected superficial bursae resulted in greater morbidity and extended course of antibiotic therapy, (b) systemic antibiotic agents (oxacillin and penicillin) penetrate adequately into the bursal fluid, and (c) when antibiotic treatment was continued for five additional days after sterilization of the bursal fluid, the results were uniformly good.⁸

Summary

We report a case of septic prepatellar bursitis in a six-year-old boy due to group A, beta hemolytic *Streptococcus*. Septic bursitis as it occurs in adults is reviewed briefly. This case illustrates the importance of accurately differentiating septic bursitis from septic arthritis, as the treatment of septic bursitis more closely parallels that of a soft tissue infection, rather than a more serious bone or joint infection. In septic bursitis, we recommend accurate diagnosis followed by prompt non-surgical treatment of closed needle drainage and systemic antibiotic therapy as the initial treatment.

Acknowledgment

We are indebted to Alfred Toselli, MD for allowing us to report his patient, to Joseph A. Izzi, MD for providing orthopedic management, and to Leo Stern, MD for his advice on the manuscript. Ms. Lori Fratantuono provided secretarial assistance.

References

- 1 Marchildon A, Slonim RR, Brown HE Jr, et al: Primary septic bursitis. *J Florida Med Assoc* 50:139-141, Aug 63.
- 2 Ho G Jr, Tice AD, Kaplan SR: Septic bursitis in the prepatellar and olecranon bursae: an analysis of 25 cases. *Ann Intern Med* 89(1):21-27, Jul 78.
- 3 Thompson GR, Manshady BM, Weiss JJ: Septic bursitis. *JAMA* 240(21):2280-2281, 17 Nov 78.
- 4 Canoso JJ, Sheckman PR: Septic subcutaneous bursitis. Report of 16 cases. *J Rheumatol* 6(1):96-102, Jan-Feb 79.
- 5 Sharrard, WJ: *Paediatric Orthopaedics and Fractures*. London, Blackwell Scientific Publications, 1979, p 1320.
- 6 Tachdjian, MO: *Pediatric Orthopedics*. Philadelphia, WB Saunders Co, 1972, pp 1113-1114.
- 7 Ho G Jr, Tice AD: Comparison of nonseptic and septic bursitis. Further observations on the treatment of septic bursitis. *Arch Intern Med* 139(11):1269-1273, Nov 79.
- 8 Ho G Jr, Su EY: Antibiotic therapy of septic bursitis. Its implication in the treatment of septic arthritis. *Arthritis Rheum* 24(7):905-911, Jul 81.

Veterans Administration Medical Center
Davis Park
Providence, RI 02908

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, passwords and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indis-
pensible element in Business Insurance . . . *Personal*
Service by an agent who knows you and your business.

Asphyxic Disease of the Neonatal Kidneys

Clinical-Pathologic Conference

Andrew Brem, MD
Don B. Singer, MD

The following is the clinical history of the subject of this conference: This was the second of twins born to a 38-year-old with blood group A, Rh positive, VDRL negative. She was gravida 3, para 2. The pregnancy was uncomplicated until the 29th week of gestation when the mother was admitted to the Women & Infants Hospital with vaginal bleeding and in premature labor. Two weeks prior to the admission, she had noted increasing abdominal discomfort. A sonogram obtained prior to admission had demonstrated twins and polyhydramnios. Following admission to the hospital, bleeding was controlled and the labor was halted. An amniocentesis was performed and 850 ml of fluid were removed. A lecithin:sphingomyelin ratio was 1½:1 on this

amniotic fluid. While still in the hospital, she suddenly felt a popping sensation, and examination revealed a prolapsed arm and cord in the vagina. There were no pulsations in the cord, and the prolapse was reduced. An emergency cesarean section was then performed, and twin A, a male, was stillborn with a weight of 850 grams. Twin B was limp, gray, and bradycardic. The infant was immediately resuscitated and given Apgar scores of 1 at one minute and 3 at five minutes. The infant was then transferred to the special care nursery.

He was pale and bradycardic, and weighed 1060 grams with a blood pressure of 30 mmHg by palpation. The infant's gestational age was estimated at 30 weeks. Other pertinent physical findings included a thready weak pulse and few spontaneous respirations. He was unresponsive to stimuli. There were no dysmorphic features other than bilateral simian creases.

Significant laboratory data included an intermediate shake test performed on the gastric aspirate. A Gram stain of the gastric aspirate demonstrated no bacteria. The chest x-ray study showed a reticular granular appearance in both lung fields. The hematocrit was 56 vol per cent, white blood cell count 4,400 per cu mm with normal differential.

Following admission to the special care nursery, the infant was intubated and placed on a mechanical ventilator. Initially, the baby required

This is one of a series of Clinical-Pathologic Conferences sponsored by the Department of Pathology, Women & Infants Hospital, Providence, Rhode Island and the Section of Pathology, Brown University Program in Medicine.

Andrew S. Brem, MD, Director for the Division of Pediatric Nephrology, Rhode Island Hospital; Assistant Professor, Brown University Program in Medicine, Providence, Rhode Island.

Don B. Singer, MD, Chief of Pathology and Laboratory Medicine, Women & Infants Hospital; Professor of Pathology, Brown University Program in Medicine, Providence, Rhode Island.

100 per cent oxygen with pressures of 18/4 cmH₂O. During the first day of life, a systolic murmur was heard intermittently. The chest x-ray film showed increased heart size. Peaked P waves and ST segment were noted in the electrocardiogram. The infant was given digoxin for presumed congestive heart failure. At 12 hours of age, a serum bilirubin was 9.9 mg/dl with a direct reacting fraction of 1.6 mg/dl. The infant's blood type was group O, Rh negative, and the hematocrit at that time was 51 vol per cent with a platelet count of 96,000 per cu mm. No evidence of hemolysis was found in the blood smear. In view of the rising bilirubin, a double volume exchange transfusion was undertaken. At approximately twelve hours later, the bilirubin rose to 10 mg/dl with a direct reacting fraction of 1.5 mg/dl. A second exchange transfusion was begun. During this procedure, the infant suffered a cardiopulmonary arrest requiring vigorous resuscitation. The exchange transfusion was stopped, and phototherapy was instituted. The direct-reacting fraction of the bilirubin subsequently rose to 4.6 mg/dl with a total bilirubin of 6.4 mg/dl by the 5th day of life.

Following the cardiopulmonary arrest at 24 hours of age, a central venous catheter was placed. Intermittent episodes of hypotension were treated with volume replacement including Plasmanate® and whole blood transfusions. With volume replacement the central venous pressure was approximately 4-5 cmH₂O and the blood pressure was approximately 30 mmHg by palpation. By 36 hours of age the hypotension no longer responded to volume replacement, and dopamine was given by drop intravenously.

The infant became oliguric, the scanty urine showing a pH of 5 with 2+ protein and gross hematuria. The oliguria and need for dopamine continued through the 5th day of life. On the fourth day, the baby developed oozing from nee-

dle puncture sites associated with a platelet count of 23,000 pr cu mm and a fibrinogen of 40 mg/dl with a prolonged partial thromboplastin time of greater than 100 seconds. The prothrombin time was also prolonged, 21 seconds with a control of 11.5 seconds. The infant was treated with fresh frozen plasma, vitamin K, and platelet transfusion. Blood pressure during the treatment remained approximately 35-45 mmHg by palpation. On the fifth and sixth days of life, the infant began passing small amounts of urine, but again suffered a marked fall in blood pressure requiring an increase in dopamine therapy. Blood and urine cultures obtained during the first several days of life did not demonstrate bacterial infection. On the seventh and final day of life, the infant remained oliguric and sustained a second cardiopulmonary arrest associated with severe hyperkalemia and metabolic acidosis. Resuscitation attempts were unsuccessful, and the infant expired (Table 1).

Discussion

Dr. Andrew Brem*: Before launching into a discussion of such a complicated case, it would certainly be appropriate to list the salient features leading to this infant's renal failure and eventual demise. First, shock was clinically present at birth characterized by bradycardia with thready pulses, low blood pressure, and a pale gray appearance. A twin to twin transfusion or excessive hemorrhage from twin B was unlikely in view of the presence of bradycardia and not tachycardia. A cardiorespiratory arrest occurred within the first 36 hours of life during an exchange transfusion. Following a successful resuscitation, hypotension persisted despite efforts to expand

* Director, Division of Pediatric Nephrology, Rhode Island Hospital, Assistant Professor of Pediatrics, Brown University Program in Medicine.

Table 1. Specific Laboratory Values of Infant Days 2-8.

Day of Life	Weight (gm)	Na		Serum		Cl	CO2	BUN	Creat	Gluc	Urine	
				K							Na	K
2	1030							14	.9			
3	1350	137		6.7		98	21	20	1.6			
4	1195	147		4.5		107	16	20	1.2	245	90	16
5	1060							20	.2			
6	1095	155		7.5		115	18	39	1.7			
7	1130	153		6.5		109	16	42	2.1		88	42
8	1130	154		8.5				52	2.7			

the intravascular space and pressor agents. These two hypoxic episodes undoubtedly contributed to a low cardiac output state. Second, thrombocytopenia, prolonged activated partial thromboplastin times, and oozing from puncture sites suggested that disseminated intravascular coagulation was occurring. Third, a rapidly rising serum creatinine and accompanying oliguria were noted following the cardiopulmonary arrest. Fourth, jaundice was observed. This finding was particularly interesting in view of the elevation in the direct-reacting fraction of bilirubin, an unusual feature in neonates.

Two possible pathologic processes may account for this infant's acute renal failure and the other listed clinical findings: vascular disease¹ or sepsis. The separation of these two categories is somewhat arbitrary, as a significant overlap often occurs. In the course of this discussion I shall touch on diseases in both of these categories and hope to arrive at an appropriate differential diagnosis.

Beginning with the vascular group, acute tubular necrosis (ATN) or vasomotor nephropathy comes to mind in the setting of shock. Vascular compromise was clearly present as seen by the early hypotension, cardiomegaly on chest x-ray examination, EKG changes, and later poor response to volume expansion. Initially increased vascular resistance² superimposed on poor renal perfusion allows for tubular injury frequently seen on biopsy specimens from other patients.³ Fractional excretion of sodium is high reflecting the tubular injury.⁴ While fractional excretion of sodium wasn't studied in this case, spot urinary sodium values were approximately 90 mEq/liter, providing evidence for tubular injury. An oliguric phase was followed by a period of polyuria as is characteristic of this disorder. One feature in the clinical history, however, made simple ATN less likely, and that is the appearance of gross hematuria with 3+ proteinuria. Generally speaking, gross hematuria and heavy proteinuria do not occur in cases of ATN.³ When present, the hematuria is microscopic with occasional casts and low-grade proteinuria. In addition, ATN and shock would not easily account for the thrombocytopenia and direct hyperbilirubinemia.

Corticomedullary necrosis is another vascular disorder that perhaps is an extension of ATN, which leads to segmental parenchymal infarction and hemorrhage.⁵ Corticomedullary necrosis can be seen in the setting of severe shock, gross hematuria, and acute renal failure.⁶ In addition to the obvious decrease in glomerular filtration and

tubular injury, signs of disseminated intravascular coagulation and thrombocytopenia are frequently present,^{5, 6} as was noted in this case. A modified Schwartzman reaction involving the kidneys is one proposed explanation of the intravascular events that occur in this condition.⁵ In the experimental model of this reaction, endotoxin induces intravascular coagulation and capillary thrombosis. The presence of endotoxin obviously links corticomedullary necrosis with infection. This hypothesis is doubtful in that infection and intravascular coagulation are not always found clinically. One must consider other pathophysiologic mechanisms to account for the findings in corticomedullary necrosis. Hypoxia coupled with systemic acidosis markedly increases renal vascular resistance.⁷ When vascular collapse is added, renal perfusion can be reduced to the point of focal infarction with thrombosis and hemorrhage. Either or both of these mechanisms could have produced this infant's renal failure and patchy necrosis in other organs.

Renal venous thrombosis is the last major vascular disorder to be considered in this infant. I stress the term venous thrombosis rather than vein thrombosis since the process actually begins in the peripheral radicals of the renal venous system.^{8, 9} If the renal vein becomes involved, it generally does so by progression from the smaller radicles toward the larger tributary. Renal venous thrombosis usually presents clinically with gross hematuria, significant proteinuria, and enlargement of the affected kidney. Disseminated intravascular coagulation with thrombocytopenia can also be seen.⁸ The absence of several important features in this case made this diagnosis unlikely. The first is the lack of common predisposing factors such as maternal diabetes mellitus, the use of hypertonic radiographic contrast material, or the presence of cyanotic heart disease.⁸ In addition, the oliguria observed in this infant suggested diffuse bilateral renal involvement, an unusual manifestation of renal venous thrombosis.

The second category of disease which would conveniently link the pieces of this complex puzzle together is infection. Numerous cultures taken during this baby's short illness were negative essentially excluding bacterial causes of sepsis. Congenital TORCH* infections, however, are capable of producing the hepatic, hematological, and renal disease. The three TORCH diseases

* Toxoplasmosis, rubella, cytomegalovirus, and herpes.

associated with glomerulonephritis are toxoplasmosis,¹⁰ cytomegalovirus, and syphilis.¹¹ With regard to the latter, the maternal VDRL in this case was negative both early in the pregnancy and just before delivery. Therefore, syphilis can be excluded as a diagnostic possibility. Toxoplasmosis and cytomegalovirus are more difficult to diagnose and are ubiquitous in humans. They may infect the fetus or newborn while the mother remains relatively asymptomatic. Disseminated intravascular coagulation, direct hyperbilirubinemia, an increased white blood count, a reticular granular pattern on chest x-ray examination, all observed in this infant, and a glomerulonephritis, can be signs of severe systemic toxoplasma or cytomegalovirus infection. Vascular collapse superimposed on systemic infection may easily explain this infant's rapid demise. There was no serologic evidence to support the diagnosis of infection in this case.

The data available most strongly suggests the following diagnoses:

1. Renal corticomedullary necrosis on the basis of asphyxia and acidosis.
2. Unproven congenital infection with superimposed corticomedullary necrosis.

In closing, I should like to comment briefly on two points generally related to this case. The first is the assessment of blood pressure in the neonatal period. Accurate measurements of blood pressure can be difficult to obtain and require an appropriate cuff size covering at least $\frac{2}{3}$ of the upper arm. Systolic values range from 60 to 80 mmHg in healthy term newborns and 38 to 60 mmHg in prematures as early as 28 weeks' gestation.¹² In this patient, a systolic pressure of 30 mmHg was clearly low.

The second point concerns renal sodium reabsorption in premature infants. It is now fairly well established that obligate urinary sodium losses are significantly higher in very premature infants in the absence of serious renal disease.¹³ This increased fractional sodium excretion may be secondary to problems unique to the premature infant. Factors such as tubular length¹⁴ and serum oncotic pressure¹⁵ may play a role. The acidosis, hypoxia,¹⁶ hyperbilirubinemia,¹⁷ and resulting tubular damage only further exaggerate the salt wasting seen in this patient.

Dr. P. Smith*: What is the pulmonary disease?

The pulmonary symptoms and the reticular-granular pattern described in the chest x-ray examination must have been important.

Dr. Brem: This was a markedly preterm infant, born at 30 weeks, a twin, with demonstrated decreased lecithin/sphingomyelin ratios in the amniotic fluid. The pulmonary disease was almost certainly hyaline membrane disease. Congenital pulmonary infection may have been present, too.

Dr. Leo Stern†: I would agree that your best bet is respiratory distress syndrome of the preterm neonate. Even without the L/S ratio, the 30-week gestation, the asphyxia, and the twin birth are strong evidence for idiopathic respiratory distress syndrome.

Dr. G. Anderson‡: We haven't yet heard about the obstetrical factors. Was the placenta examined? Was there significant cross circulation, enough to produce twin-twin transfusion syndrome?

Dr. D. Singer§: The placenta was monochorionic, indicating that these were identical (monozygotic) twins. However, the twins' weights were within 150 grams of one another, and we don't think that there was a transfusion syndrome between the twins in utero. Twin A was stillborn and was autopsied but showed no findings that would help us with Twin B.

Dr. W. Cashore||: One or two points may be important in this case. Babies with respiratory distress syndrome don't often die of that disease any more. They usually have superimposed complications since the ventilation can be improved with various instruments and respirators. I would predict that in addition to the renal disease, we will find some central nervous system disease. Kernicterus may be present even with the low levels of indirect reacting bilirubin in this case, since asphyxia, acidosis, and the marked prematurity here all lend themselves to the development of kernicterus.

Dr. D. Singer: The medical students have their diagnoses and discussion.

* Associate, Division of Pediatric Hematology/Oncology, Rhode Island Hospital, Assistant Professor of Pediatrics, Brown University.

† Chief of Pediatrics, Rhode Island Hospital, Chairman of Pediatrics, Brown University.

‡ Director of Continuing Education, Women & Infants Hospital, Lecturer in Obstetrics, Brown University.

§ Chief of Pathology, Women & Infants Hospital, Professor of Pathology, Brown University.

|| Neonatologist, Women & Infants Hospital, Associate Professor of Pediatrics, Brown University.

Grant Price#: The students felt that renal problems were primary in this case and that the fatal lesion is cortical necrosis or acute tubular necrosis secondary to asphyxia. In fact, most everything in this infant is secondary to asphyxia. We could not, however, explain the jaundice with the high direct reacting fraction. One of the TORCH diseases may be present. We expect the lungs to show hyaline membrane disease, and we expect organs throughout the body to have microthrombi; in other words, there was probably a disseminated intravascular coagulopathy. The baby also probably had a patent ductus arteriosus.

Dr. D. Singer: We obtained TORCH titers on postmortem blood and cultures of several organs for the various TORCH diseases. All such studies were negative.

The lungs were heavy and congested, and were the seat of residual hyaline membrane disease along with early developing bronchopulmonary dysplasia. The latter is represented by fibroblasts proliferating in the interstitium.

The central nervous system was diseased but not with kernicterus. There was a small intraventricular hemorrhage associated with periventricular leukomalacia and cerebellar hemorrhages. This last mentioned lesion is one we see with increasing frequency in asphyxiated infants. Myocardial necrosis was noted. This is another lesion that is receiving increasing attention in neonates. This also is most commonly associated with asphyxia.¹⁸ Further evidence of asphyxia was found in the gastrointestinal tract, where focal mucosal hemorrhages were noted.

One lesion in this case has no clear explanation on the basis of asphyxia, giant cell transformation of the liver (Fig 1). The etiologies of giant cell transformation include more than 20 conditions. In this particular case, the lesion is unusual because giant cells are rare in infants 7 days of age or less. TORCH diseases again were a major consideration since giant cells may be seen in cytomegalovirus, rubella, herpes and syphilis. Rarely, even toxoplasmosis may have hepatic giant cells, but we think all these conditions have been eliminated from consideration.

Finally, we come to the kidneys, which were the site of major disease. Hemorrhages and necroses straddled the medulla and cortex (Fig 2). Within the hemorrhagic areas, loss of tubules was pronounced. Tubules and glomeruli were necrotic

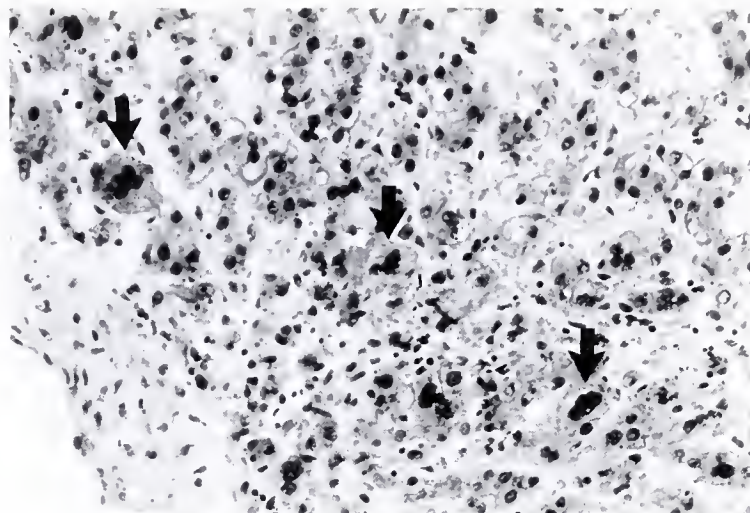


Figure 1. Hepatic giant cells (arrows) each contain 5-8 nuclei. Mononuclear hepatocytes are vacuolated. Hematoxylin and eosin stain. 200× original magnification.

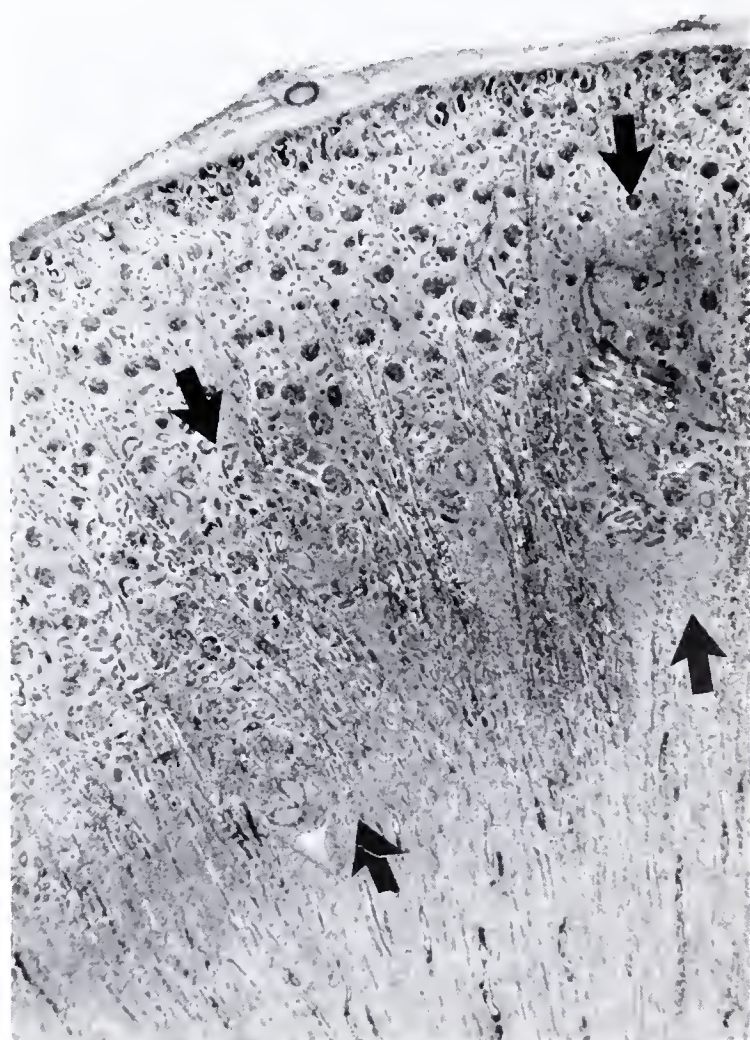


Figure 2. Renal necrosis is concentrated in the deep cortex and superficial medulla (between arrows). Hematoxylin and eosin stain. 20× original magnification.

(Fig 3). This acute corticomedullary necrosis with intraparenchymal hemorrhage was, on the basis of findings in other organs, probably due to asphyxia. Our list of diagnoses is as follows:

1. Asphyxia with renal corticomedullary necrosis and hemorrhage;
2. Periventricular necrosis in the brain with petechiae in the cerebellum;
3. Gastrointestinal mucosal hemorrhages;
4. Myocardial necrosis;

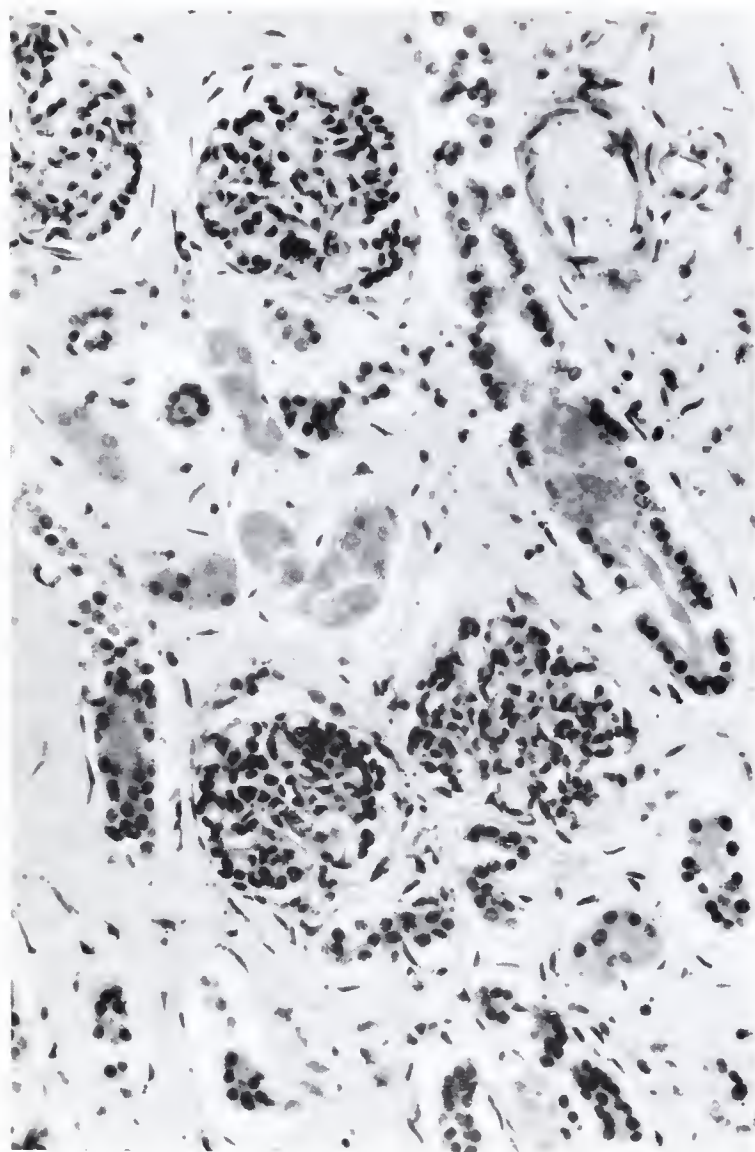


Figure 3. Renal tubular and glomerular necrosis is accompanied by interstitial hemorrhage. Hematoxylin and eosin stain. 200 \times original magnification.

5. Residual pulmonary hyaline membranes and fibrosis;

6. Giant cell transformation of the liver, etiology unknown; and

7. Bile stasis.

Dr. W. Oh*: The giant cell transformation of the liver indicates to me that significant disease occurred in utero. The major lesions responsible for demise were those discussed; ie, those following the asphyxia, just as Doctor Brem and the students have said. However, we need to search for an explanation for the giant cell transformation of the liver.

Dr. D. Singer: We did our best to discover the type of intrauterine disease with autopsy and biologic studies. TORCH titers were negative, as were cultures. Further negative evidence exists in the autopsy examination of Twin A; he had no changes in the liver. There is no reason seriously to doubt that Twin B and Twin A were discordant for giant cell transformation of the liver. You were probably correct about intrauterine disease, but we haven't pinned down the specific cause.

Dr. W. Oh: Could twin-to-twin transfusion syndrome have produced the hepatic lesion? The difference in weights is only 150 grams, but the heavier of the two weighed only 1000 grams. This represents about 15-20 per cent difference in weight, which I would consider significant. Twin-twin transfusion syndrome might certainly have been present.

Dr. D. Singer: Twin-twin transfusion syndrome has not to my knowledge produced the lesion that we see in the liver. It may have produced some of the other findings in Twin B that resulted in shock and hypoxia, but we don't think so. Twin B was the larger of the two.

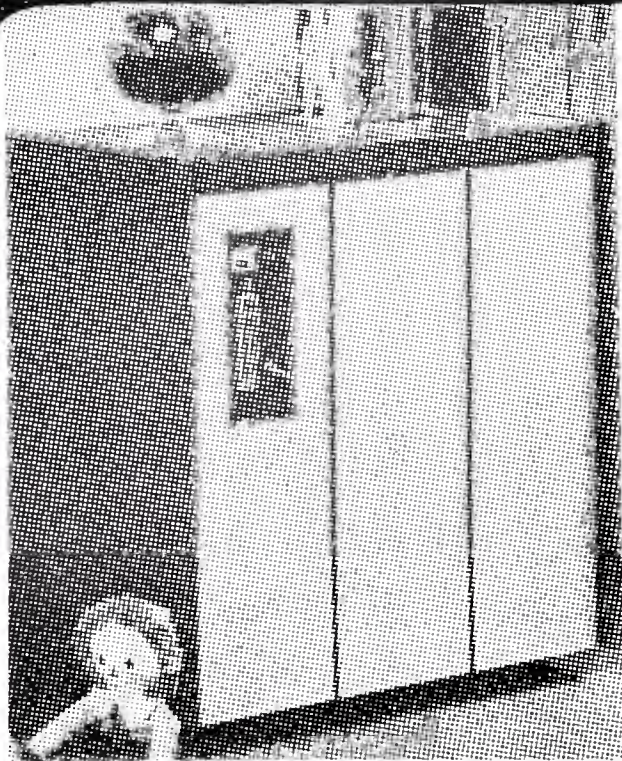
Dr. A. Brem: The discussion of the intrauterine disease is pertinent to a degree. Most of the clinical events in Twin B and the ultimately lethal lesions were asphyxic/hypoxic in nature. We felt it more important to address ourselves to these since they are more common than the conditions that might have produced the hepatic giant cell transformation.

* Chief of Pediatrics, Women & Infants Hospital, Professor of Pediatrics and Obstetrics and Gynecology, Brown University.

References

- ¹ Zuelzer WW, Charles S, Kurnetz R, et al: Circulatory diseases of the kidneys in infancy and childhood. *Am J Dis Child* 81(1):1-46, Jan 51.
- ² Levinsky NG: Pathophysiology of acute renal failure. *N Engl J Med* 296(25):1453-1458, 23 Jun 77.
- ³ Solez K, Morel-Maroger L, Sraer JD: The morphology of acute tubular necrosis in man: analysis of 57 renal biopsies and a comparison with the glycerol model. *Medicine* 58(5):362-376, Sep 79.
- ⁴ Miller TR, Anderson RJ, Linas SL, et al: Urinary diagnostic indices in acute renal failure: a prospective study. *Ann Int Med* 89(1):47-50, Jul 78.
- ⁵ Bernstein J: Renal cortical and medullary necrosis, in Edelmann CM Jr (ed): *Pediatric Kidney Disease*. Boston, Little Brown & Co, 1978, p 1150.
- ⁶ Kurnetz R, Bernstein J: Neonatal blood loss and hematuria. *J Pediatr* 84(3):452-455, Mar 74.
- ⁷ Weismann DN: Influence of hypoxemia associated with normal and decreased arterial blood pH on renal hemodynamics in the neonatal lamb. *Ped Res* (abst) 14:627, 1980.
- ⁸ Arneil GC, MacDonald AM, Murphy AU, Sweet EM, et al: Renal venous thrombosis. *Clin Nephrol* 1:119-131, May-Jun 73.
- ⁹ Belman BA: Renal vein thrombosis in infancy and childhood: a contemporary survey. *Clin Pediatr* 15(11):1033-1044, Nov 76.
- ¹⁰ Shahin B, Papadopoulou ZL, Jenis EH: Congenital nephrotic syndrome associated with congenital toxoplasmosis. *J Pediatr* 85(3):366-370, Sep 74.
- ¹¹ Hill LL, Singer DB, Falletta J, et al: The nephrotic syndrome in congenital syphilis: an immunopathy. *Pediatr* 49(2):260-266, Feb 72.
- ¹² Levison H, Kidd BSL, Gemmell PA, et al: Blood pressure in normal full term and premature infants. *Amer J Dis Child* 111(4):374-379, Apr 66.
- ¹³ Engelke SC, Shali BL, Vasan U, et al: Sodium balance in very low-birth-weight infants. *J Pediatr* 93(15):837-841, Nov 78.
- ¹⁴ Edwards BR, Mendel DB, Valtin H: Functional correlates of postnatal growth of superficial loops of Henle in the rat (abst.). *Fed Proc* 39:335, 1980.
- ¹⁵ Quinn MD, Marsh DJ: Peritubular capillary control of proximal tubule reabsorption in the rat. *Am J Physiol* 236(5):F478-487, May 79.
- ¹⁶ Alward CT, Hook JB, Helmrath TA, et al: Effects of asphyxia on renal function in the newborn piglet. *Pediatr Res* 12(3):225-228, Mar 78.
- ¹⁷ Broberger U, Aperia A: Renal function in infants with hyperbilirubinemia. *Acta Paediatr Scand* 68(1):75-79, Jan 79.
- ¹⁸ Donnelly WH, Bucciarelli RL, Nelson RM: Ischemic papillary muscle necrosis in stressed newborn infants. *J Pediatr* 96(2):295-300, Feb 80.

Department of Pathology
Women & Infants Hospital
50 Maude Street
Providence, RI 02908



Briox.

the new, safe
concept in oxygen
for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166



evening clinic

for alcohol affected families

A state licensed private medical outpatient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

HEALTH HAVENS

NURSING HOME

East Providence

Rhode Island Medical Journal

August 1982
Volume 65, Number 8



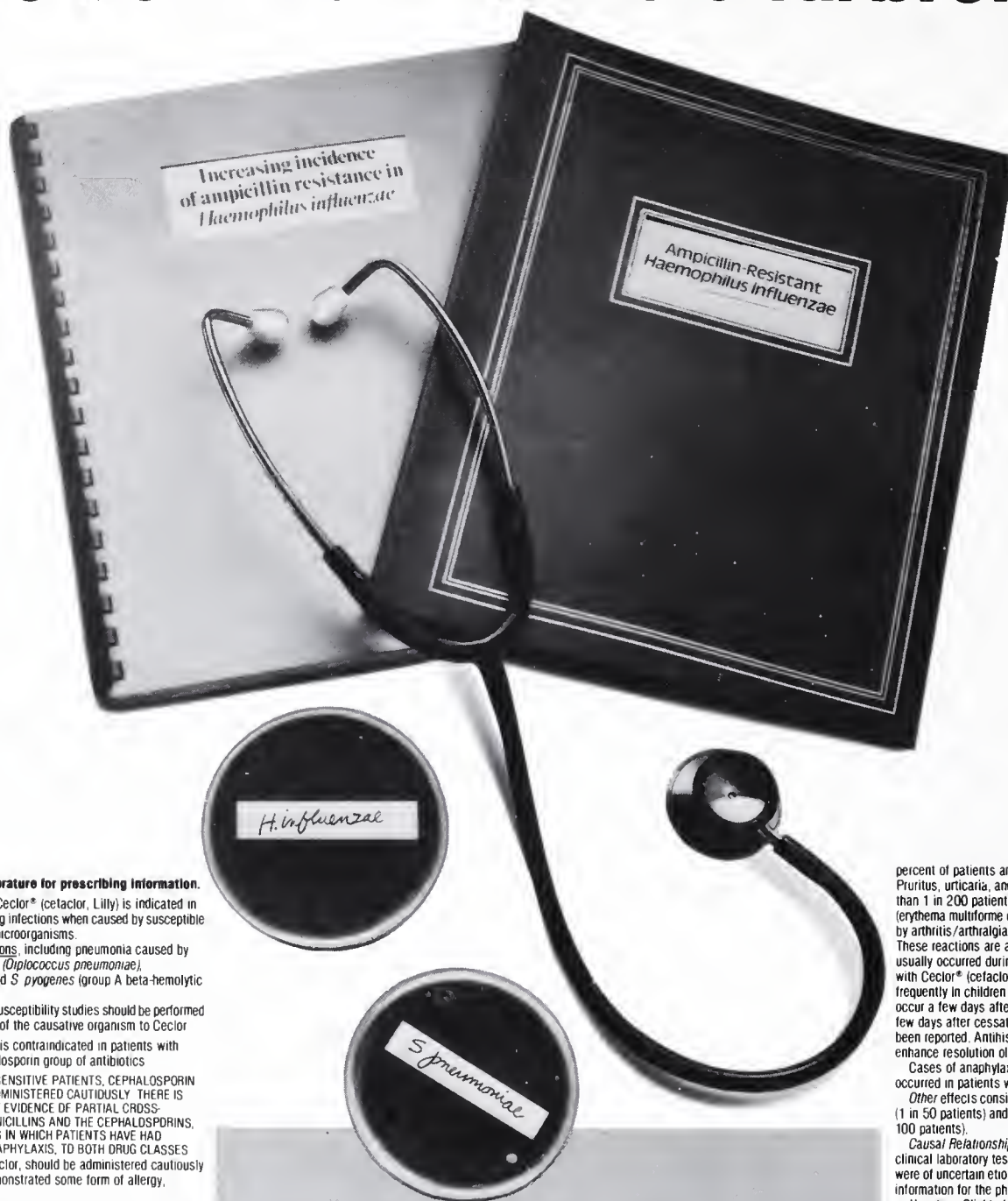
Illustration: See page 293

CONTRIBUTIONS

- 315 Peptic Ulcer Disease: Review and Update
- 324 Folk Remedies of Rhode Island's Portuguese-American Immigrants
- 329 Resuscitation in Rhode Island
- 299 NEWSLETTER
- 307 PRESIDENT'S PAGE
- 309 EDITORIALS
- 312 EDITOR'S MAILBOX
- 313 RADIOGRAPHIC CASE OF THE MONTH

LIBRARY
U.C. SAN FRANCISCO
AUG 1982

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.

Consult the package literature for prescribing information.

Indications and Usage: Cefclor* (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Cefclor.

Hypersensitivity reactions have been reported in about 1.5

percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefclor* (cefclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain: Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [100281F]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.*

Note: Cefclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975
2. Antimicrob. Agents Chemother., 11:470, 1977
3. Antimicrob. Agents Chemother., 13:584, 1978
4. Antimicrob. Agents Chemother., 12:490, 1977
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11:880. Washington, D.C. American Society for Microbiology, 1978
6. Antimicrob. Agents Chemother., 13:861, 1978
7. Data on file, Eli Lilly and Company
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

Rhode Island Medical Journal

August 1982
Volume 65, Number 8

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

***Guy A. Settipane, MD**
Chairman

***Stanley M. Aronson, MD**
Contributing Editor

***Maurice M. Albala, MD**
Paul Calabresi, MD

***Herbert Fanger, MD**
Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**
Robert V. Lewis, MD
Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**
Henry T. Randall, MD
Joseph Amaral, MD
Resident

OFFICERS

Melvin D. Hoffman, MD
President

Leonard S. Staudinger, MD
Vice President

Milton W. Hamolsky, MD
Secretary

Charles P. Shoemaker, Jr., MD
President-Elect

Kenneth E. Liffmann, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Elie J. Cohen, MD
Newport County Medical Society

Constantine G. Demopulos, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society





- Funded CME's
- Flexible hours and locations
(as not to interfere with your practice)
- Non - contributory retirement annuity
- Affiliation with the largest comprehensive health care system in the world
- A chance to broaden your medical expertise

or return coupon to:

AMEDD Personnel Procurement

FOB, Suite 532

450 Main Street

Hartford, CT 06103

Name: _____

Specialty: _____

Address: _____

Business Phone: _____

Home Phone: _____

Best Time to Call: _____

**ARMY RESERVE.
CARE FOR YOUR COUNTRY.**

TABLE OF CONTENTS

299 **NEWSLETTER**

307 **PRESIDENT'S PAGE**

Physicians for Protection of Patients

309 **EDITORIALS**

Bloodletting Revived
George W. Waterman, MD (1893-1982): An Appreciation

312 **EDITOR'S MAILBOX**

Providence Perinatal Health Consortium

313 **RADIOGRAPHIC CASE OF THE MONTH**

CONTRIBUTIONS

315 **Peptic Ulcer Disease: Review and Update**

The Present State of Ulcer Diagnosis and Therapy Are Outlined
Douglas Levine, MD

324 **Folk Remedies of Rhode Island's Portuguese-American Immigrants**

Folk Medicine Is Alive and Well in Our Ethnic Enclaves
Lois A. Monteiro, MD

329 **Resuscitation in Rhode Island**

Improvement in Resuscitation of Severely Ill and Injured Patients Will Require a Team Effort
Glenn W. Mitchell, MD

COVER

Illustration of hypericum perforatum, or perforated St. John's wort, from Medical Botany by William Woodville, MD, FLS published by John Bohn, London, 1832.

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, passwords and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indis-
pensable element in Business Insurance . . . *Personal*
Service by an agent who knows you and your business.

There's more to ZYLOPRIM[®] than (allopurinol).



- From Burroughs Wellcome Co. – the discoverer and developer of allopurinol
- Patient starter/conversion kits available for easy titration of initial dosage
- Patient compliance pamphlets available
- Continuing medical education materials available for physicians



Prescribe for your patients as you would for yourself.

*Write "D.A.W.," "No Sub," or "Medically Necessary,"
as your state requires, to make sure
your patient receives the original allopurinol.*



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION: INSOMNIA

Others to look for:

agitation

anorexia

feelings of guilt
and worthlessness

fatigue

palpitations

headache

vague aches
and pains

sadness

psychic and
somatic anxiety

Artist's conception,
looking out from the human eye
as conceived in a schematic model.

LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

Limbitrol given once daily h.s.
may be the best approach

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg clordiazepoxide and 12.5 mg amitriptyline
(as the hydrochloride salt)

Tablets 10-25 each containing 10 mg clordiazepoxide and 25 mg amitriptyline
(as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses.) Myocardial infarction and stroke reported with use of this class of drugs. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. **Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropyrinamide symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage at three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage at three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

WHY YOU SHOULD MAKE A CORPORATE CONTRIBUTION TO THE AD COUNCIL

The Advertising Council is the biggest advertiser in the world. Last year, with the cooperation of all media, the Council placed almost six hundred million dollars of public service advertising. Yet its total operating expense budget was only \$1,147,000 which makes its advertising programs one of America's greatest bargains... for every \$1 cash outlay the Council is generating over \$600 of advertising.

U.S. business and associated groups contributed the dollars the Ad Council needs to create and manage this remarkable program. Advertisers, advertising agencies, and the media contributed the space and time.

Your company can play a role. If you believe in supporting public service efforts to help meet the challenges which face our nation today, then your company can do as many hundreds of others—large and small—have done. You can make a tax-deductible contribution to the Advertising Council.

At the very least you can, quite easily, find out more about how the Council works and what it does. Simply write to: Robert P. Keim, President, The Advertising Council, Inc., 825 Third Avenue, New York, New York 10022.



A Public Service of This Magazine & The Advertising Council.

The cost of preparation of this advertisement was paid for by the American Business Press, the association of specialized business publications. This space was donated by this magazine.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Newsletter

August 1982

Melvin D. Hoffman, MD, Editor
Karen Challberg, Associate Editor

HOW MUCH TIME DO PHYSICIANS SPEND IN PATIENT ENCOUNTERS?

Results of a \$3-million study of 10,000 US physicians, recently published by The Robert Wood Johnson Foundation, presents the mean encounter time between physician and patient in 23 specialties. The mean encounter time for all patients in general practice is 10.7 minutes, family practice 11.5 minutes, pediatrics 12.3, internal medicine 17.6, cardiology 19.0, gastroenterology 21.0, pulmonary disease 18.1, hematology 16.8, endocrinology 21.2, nephrology 16.1, medical oncology 14.6, rheumatology 17.8, infectious disease 17.8, allergy 13.0, dermatology 9.5, neurology 23.5, psychiatry 37.9, obstetrics-gynecology 14.5, general surgery 16.1, ophthalmology 17.7, orthopaedic surgery 14.0, otorhinolaryngology 14.5, and neurosurgery 18.1 minutes. These mean times are those in which the physician and patient are personally together in a face-to-face encounter, excluding time the patient spends with other medical or staff personnel and time spent by the physician in preparation for the encounter or in writing notes or other activities after the encounter.

CME REPORTING TIME IS HERE

During the first week of September the Division of Professional Regulation of the Rhode Island Department of Health will mail CME reporting forms to all Rhode Island licensed physicians. Completed forms documenting CME credits earned between October 1, 1979 and October 1, 1982 must be submitted before October 15, 1982. Relicensure applications will be mailed only after CME forms have been received by the Division of Professional Regulation.

PHYSICIAN OPPORTUNITIES:

Two physicians are needed to serve in the rural community of Beach, North Dakota. Preference is for candidates board certified in family practice or internal medicine. Send inquiries to Mr. Bryan Sexauer, Administrator, Golden Valley County Hospital, Box 398, Beach, North Dakota 58621.

The Rutland Hospital, a 300 bed community hospital located in central Vermont, is seeking a board certified anesthesiologist, preferably with prior management experience, to function as the chairperson of the Anesthesiology Department. Send inquiries to Gordon R. Kelly MD, Chairman, Anesthesiology Search, The Rutland Hospital, Inc., Rutland, Vermont 05701.

"STARTING YOUR PRACTICE" WORKSHOP OCTOBER 30-31, 1982

The Rhode Island Medical Society will bring AMA Department of Practice Management speakers to Rhode Island for an intensive, two-day seminar for physicians planning to enter private practice. The course will deal with financial and legal concerns, personnel, patient relations, medical records, and other subjects. It is planned for October 30-31, 1982, at the Marriott Inn, Providence. For more information, contact RIMS, (401) 331-3207.

PERIPATETICS

Anthony F. Merlino MD has been elected President of the Rhode Island Chapter of the American College of Surgeons and also has been elected President of the Rhode Island Orthopedic Society.

Chairman of the Board of Directors of Blue Shield of Rhode Island since 1976, William J. MacDonald MD has been selected to serve on the Board of Directors of the national Blue Shield Association.

Mary Lekas MD has been accepted as a member of the national Society of University Otolaryngologists.

New medical staff officers elected at Roger Williams General Hospital are: H. Raymond McKendall MD, president; Henry S. Urbaniak MD, vice president; F.J. Cummings MD, secretary-treasurer; and Joseph Tucci MD, executive committee delegate.

David Nason Newhall MD has been elected to fellowship in the American College of Physicians.

Medical staff officers elected at The Miriam Hospital are Mehrdad Motamed MD, president; M. Howard Friedman MD, vice president; Frederick S. Crisafulli MD, secretary; and Barry B. Schwartz MD, treasurer.

Elected to three-year terms on the board of directors of the Rhode Island Professional Standards Review Organization (RIPSRO) are Augustine Colella MD, Donald Fitzpatrick MD, Joseph R. Gaeta MD, Wallace Gonsalves MD, James R. Guthrie MD, and William Samuels MD.

Peter L. Mathieu Jr. MD is the president of the national Organization of State Medical Association Presidents (OSMAP).

Newly elected fellow of the American College of Cardiology is Ali K. Maksad MD.

A.A. Savastano MD delivered a paper titled "Advances in Orthopedic Surgery during the Last 200 Years" at the Harvard University bicentennial celebration in June.

John J. Cunningham MD recently was elected chairman of the New England delegates to the American Medical Association.

Newly appointed member of the national faculty of American Heart Association Training Network is Steven Wartman MD.

Donald R. Coustan MD has been appointed director of maternal-fetal medicine at Women & Infants Hospital and associate professor of obstetrics/gynecology in the Brown University Program in Medicine.

SECOND SURGICAL OPINION PROGRAMS (SSOPs) MASSACHUSETTS AND WISCONSIN

In recent studies of mandatory second surgical opinion programs (SSOPs), it has been estimated that in Massachusetts the program saved Medicaid \$3 to \$4 for every dollar spent, and that in Wisconsin it overall returned almost \$22 in savings to Medicaid and Medicare for every dollar of program cost. The Massachusetts experience is for seven procedures: tonsillectomy/adenoidectomy; hysterectomy; submucous resection/rhinoplasty; hemorrhoidectomy; meniscectomy; excision and stripping of varicose veins; and disc surgery/spinal fusion. The Wisconsin program requires a second opinion for ten procedures: cataract extraction; cholecystectomy; dilation and curettage; hemorrhoidectomy; hernia, inguinal; hysterectomy; joint replacement (hip, knee); tonsillectomy and/or adenoidectomy; transurethral resection, prostate; and ligation, varicose veins.

RIMS COUNTY AUXILIARIES OFFICERS 1982-1983

Rhode Island's county auxiliaries have elected heads for 1982-1983. Presidents are Mrs. William F. Varr Jr. (Lucille), Kent County Medical Society Auxiliary; Mrs. Stephen N. Grimes (Jeanne), Newport County Medical Society Auxiliary; Mrs. John J. Cunningham (Bert), Pawtucket Medical Association Auxiliary; Mrs. John Ruggiano (Ellen), Providence Medical Association Auxiliary; Mrs. William F. Sammartino (Joan), Woonsocket District Medical Society Auxiliary. The Woonsocket District Medical Society Auxiliary will be responsible for the joint annual meeting of all counties in April or May 1983, and will represent Rhode Island in all relations with the national AMA Auxiliary in 1982-1983.

RIMS TO PARTICIPATE IN "WARWICK 10 K" WEEKEND

As part of a two-day weekend dedicated to jogging, running and physical fitness (sponsored by the City of Warwick, the Midland and Warwick Malls, and the Rhode Island Medical Society) the RIMS Committee on Medical Aspects of Sports will organize conferences and clinics for runners on injury prevention training, nutrition, and shoes and clothes. Physicians taking part will be Richard Carleton MD, Joseph Chazan MD, Joseph Fitzgerald MD, Louis Fuchs MD, William Garrahan MD, Dario Herrera MD, Kenneth Knowles MD, Ernest Lowe MD, A.A. Savastano MD, Paul Shields MD, Paul Thompson MD, and Walter Thayer MD. Other participants will be Frank Santopietro DPM and Stephen Siconolfi PhD. Conferences and clinics will be held Saturday, September 25, 1982 at the Knight Campus of the Community College of Rhode Island, Warwick. A 10Km race and a 2 mile fun run will be held Sunday, September 26, 1982, starting at the Warwick Mall, Warwick, Rhode Island. For additional information, contact George Silva, (401) 295-0582.

SMOKING--"ONE OF THE WORLD'S MOST DANGEROUS EPIDEMICS"

At recent ceremonies to open a health fair in Philadelphia, Pennsylvania, C. Everett Koop MD, Deputy Assistant Secretary for Health and Surgeon General, DHHS, decried smoking as "the nation's number one preventable cause of death. This year we estimate that smoking will have caused 430,000 preventable deaths.... There's no other term for smoking than what it is--one of the world's most dangerous epidemics."

NEW ENGLAND COUNCIL OF STATE MEDICAL SOCIETIES

The New England Council of state medical societies will hold its regular fall meeting in Providence, Rhode Island on September 25, 1982. The Council, comprised of delegates from each of the New England states, meets twice yearly.

MENTAL HEALTH RIDER RECOMMENDED FOR RIMS GROUP

At the last meeting of the Mental Health Committee it was voted to recommend inclusion of a mental health rider in the Blue Cross/Blue Shield group plan for RIMS members and staff. The recommendation will be considered at the meeting of the RIMS Council in August.

RIMPAC MEDICAL FOLLIES

The Rhode Island Medical Political Action Committee (RIMPAC) will sponsor its third annual "Medical Follies" September 25, 1982 at 7:30 pm in Alumnae Hall, Brown University. The "Medical Follies" is a showcase of the arts and talents of Rhode Island medical families, produced and directed by Robert Rosen MD. General admission is \$5.00. Students and senior citizens will be admitted for half price. For further information, contact Robert Rosen MD, (401) 521-2331.

* * *

In the June Newsletter, we inadvertently failed to thank Patricia Hyzinski MD and Ronald Audette PA for their testimony in support of House Bill 7695--relating to Physician Assistants. We regret our error and wish to acknowledge their tireless efforts in getting this legislation passed into law.

(Submitted by Brian R. Clarke, Assistant Executive Director)

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn

Dalmane® [flurazepam HCl/Roche] Stands Apart

References: 1. Williams RL, Karacan I: Introduction, chap. 1, in *Sleep Disorders: Diagnosis and Treatment*, edited by Williams RL, Karacan I, Frazier SH. New York, John Wiley & Sons, 1978, p. 2. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Kales A et al: *JAMA* 241:1692-1695, Apr 20, 1979. 4. Kales A et al: *J Clin Pharmacol* 17:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 6. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 7. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 15, 1978. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Dement WC et al: *Behav Med* 5(10):25-31, Oct 1978. 10. Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. 12. Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. 13. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 14. Kales A, Kales JD: *Pharmacol Physicians* 4(9):1-6, Sep 1970. 15. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

The Physician's Sleep Glossary

Some common sleep laboratory terms

poly•som•no•graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tone (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la•ten•cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af•ter sleep on•set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to•tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re•bound in•som•nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³

Efficacy objectively demonstrated in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.

In numerous sleep laboratory investigations patients fell asleep sooner, slept longer and woke up less during the night³⁻¹² with

Dalmane®
flurazepam HCl/Roche

Compared with temazepam and other hypnotics, onset of sleep is more rapid⁴ with

Dalmane®

Fewer middle-of-the-night awakenings⁴ with

Dalmane®

More total sleep time on nights 12 to 14 of therapy⁴ and continued efficacy for up to 28 nights⁵ with

Dalmane®

Rebound insomnia is avoided upon discontinuation^{3,4,7} of

Dalmane®

Low incidence of morning "hangover"¹⁴ with

Dalmane®

The efficacy of Dalmane has been studied in over 200 clinical trials with more than 10,000 patients.³⁻¹⁵ During long-term therapy, which is rarely required, periodic blood, kidney and liver function tests should be performed. Contraindicated in patients who are pregnant or hypersensitive to flurazepam.

Please see summary of product information on following page.



ROCHE
PRODUCTS INC.
Manati, Puerto Rico
00701

Dalmane®
flurazepam HCl/Roche
15-mg/30-mg capsules

Dalmane® (flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdose, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

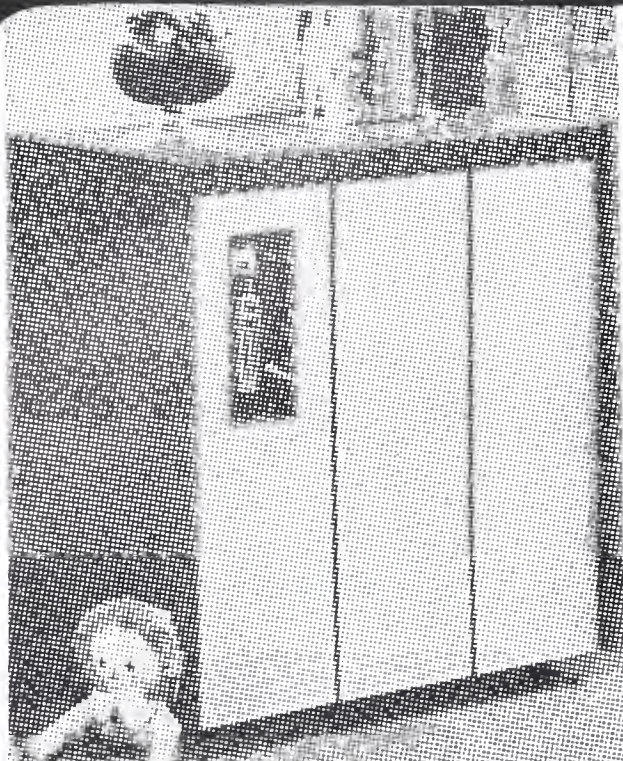
Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*"To Some People We're
More Than A Service."*



Briox.

the new, safe
concept in oxygen
for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted



685 Park Ave.
Cranston
(401) 781-2166

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500



Physicians for Protection of Patients

Last year, on assuming the Presidency of the Rhode Island Medical Society, Doctor Charles E. Millard suggested that we adopt the motto, "Protect Our Patients — Participate." The importance of this slogan can never be underestimated. Physicians have the opportunity to contribute to the protection of patients and should make this goal their continual concern.

Institutions may place institutional needs ahead of patient needs, and when this occurs, it is the physicians' responsibility to speak up and object. At the same time, physicians should work to improve their own patient protection effectiveness by remaining responsive to patients' demands, by being willing to change practice methods to improve patient relations, and by avoiding the excesses of authoritarianism, paternalism, and domination over patients described by the late Doctor Franz J. Inglefinger as "arrogance."

The problem of institutional needs taking precedence over patient protection is illustrated by a recent situation in one of our local hospitals. It began with several patients electively admitted arriving on days when their attending physicians were off call or unavailable, so that the house staff and nurses did not have sufficient history and guidance as to the reason(s) for the admissions, which resulted in inadequate treatment plans. Exhortations to the attending staff did not improve the situation, and there was poor compliance with a request for completion of a referral form developed by the Chief of Medicine to provide the necessary information.

Finally, a requirement was instituted that the referral form must be submitted at least 48 hours prior to the admission. If it were not submitted, the doctor would be notified. If the form were still not submitted at least 24 hours prior to the scheduled admission, the admission was to be cancelled.

In my opinion, the above problem and "solution" provide a good example of sacrificing patient protection to institutional expediency. A planned hospitalization requires the patient to make numerous arrangements such as leave from work, child care, altered social plans, and



Melvin D. Hoffman, MD

others — and arbitrary cancellation causes major inconveniences. In an attempt to reprimand physicians, the institution punished the patient. Disciplinary action by the institution should have been directed solely at physicians by suspended privileges, cash fines payable to the staff treasury, or some other action.

There are many opportunities for institutions guided by physicians to put patients' interests first. For the past several years I have served as a member of the all-physician Blue Shield Claims Committee. At each committee meeting several cases are considered in which medical services were rendered for a condition pre-existing within the contractual 6-month waiting period. Blue Shield staff usually recommends that the contractual obligation be adhered to, and that no payment be made. The physician and the hospital then bill the patient directly. The Claims Committee, however, has chosen to consider each case individually, and where there is no intent by the patient or the physician to abuse the plan (ie, acute cholecystitis in an individual with previously known asymptomatic gallstones, or pneumonia developing acutely in an individual with chronic lung disease), full payment is recommended to the Board of Directors of Blue Shield. This is an

example of physicians acting responsibly and protecting patients' interests by advising the institution to interpret the contractual arrangement for patients' benefit.

In private practice, as in institutions, office procedures and policies may serve to either help or harm the patient, and we should try to assure that they usually *help*.

Since patients have no single ombudsman to argue their rights, many health provider groups such as the AMA, hospital governing boards, hospital administrators, nurses, legislators, and others all claim to speak for the patient. In addition, health consumer groups have been formed by women and the elderly to speak to the physician and other health providers of their perceived needs. The wise physician will keep an ear well-tuned to these multiple voices. He or she will include in his reading articles concerning the patient/physician interaction, become cost conscious, make changes in personal practices to better help the patient, and champion institutional changes which accord patient needs the highest priority. Through improved sensitivity and responsibility, the medical profession can repair its slightly tarnished image.

By long adherence to his oath, the physician has inherited the responsibility to devote his talents to the preservation of life and the well-being of the patient. The physicians' oath in various forms stretches back into antiquity and is reaffirmed today by every medical graduate in every medical school in the world. Let our years of practice not alter our professional goal to *protect our patients*.

BIBLIOGRAPHY

¹ Lichstein PR: The resident leaves the patient; another look at the doctor-patient relationship. *Ann Intern Med* 96(6):762-765, 1982.
² Rourke MH Jr, Hock A, Pursell JS, Jones D, Spock A: sounding

boards; the news media and the doctor-patient relationship. *N Engl J Med* 305(21):1278-1280, 19 Nov 81.
³ Cassel EJ: Special article; the nature of suffering and the goals of medicine. *N Engl J Med* 306(11):639-645, 18 Mar 82.
⁴ Dardick L, Grady K: Openness between gay persons and health professionals. *Ann Intern Med* 93(Part 1):115-119, 1980.
⁵ Justus PG, Kreutziger SS, Kitchens CS: Probing the dynamics of Munchausen's Syndrome; detailed analysis of a case. *Ann Intern Med* 93(Part 1):120-127, 1980.
⁶ Ingelfinger FJ: Special article; arrogance. *New Engl J Med* 303(26):1507-1511, 25 Dec 80.
⁷ Hardison JE: Humility. *JAMA* 247(23):3193, 18 Jun 82.
⁸ Pickering G: The essence of medicine; doctor-patient relationship: the impact of recent changes in medicine and society. *Acta Med Scand* 204:339-343, 1978.
⁹ Silber J: Ethical considerations in the medical care of adolescents and their parents. *Pediatr Ann* 10(10):46-48, 1981.
¹⁰ Rubel AJ, O'Neill CW: Difficulties of representing complaints to physicians: SUSTO illness as an example. *Paho Bulletin* 13(2):134-138, 1979.
¹¹ Frenkel DA: The patient's right to be involved in the decision on treatment. *Isr J Med Sci* 17:997-1000, 1981.
¹² Jensen PS: The doctor-patient relationship: headed for impasse or improvement? *Ann Intern Med* 95(6):769-771, 1981.
¹³ Blumenthal D, Hamburg DA: Changing trends in the supply of primary care. *Ann Intern Med* 95(6):772-773, 1981.
¹⁴ Greene CS: The creation and termination of the physician-patient relationship: the physician's options. *J Med Assoc Ga* 70:670-672, 1981.
¹⁵ AMA Department of Practice Management, Division of Medical Practice: Socioeconomics: termination of the physician-patient relationship.
¹⁶ Rosenthal WS: Presidential address, the doctor-patient relationship: its present state. *Am J Gastroenterol* 71(4):373-375, 1979.
¹⁷ Wartmen SA, Morlock LL, Malitz FE, Palm E: Do prescriptions adversely affect doctor-patient interactions? *Am J Public Health* 71(12):1358-1361, 1981.
¹⁸ Gadow S: Truth: treatment of choice, scarce resource, or patient's right? *J Fam Pract* 13(6):857-860, 1981.
¹⁹ Bertakis KD: Does race have an influence on patients' feelings toward physicians? *Fam Pract* 13(3):383-387, 1981.
²⁰ Bissell WG: The doctor-patient relationship. *Ann Intern Med* 96(4):527, 1982.
²¹ Connelly JE, Mushlin AI: Periodic health examination. *Ann Intern Med* 96(4):528-529, 1982.
²² Carlen R: To the editor. *Ann Intern Med* 96(4):529, 1982.
²³ Ball JR: In comment. *Ann Intern Med* 96(4):529, 1982.
²⁴ Taller SL: To the editor. *Ann Intern Med* 96(4):529-530, 1982.
²⁵ Benson H, McCallie DP Jr: Angina pectoris and the placebo effect. *N Engl J Med* 300(25):1424-1428, 21 Jun 79.
²⁶ Benson H, Epstein MD: The placebo effect; a neglected asset in the care of patients. *JAMA* 232(12):1225-1227, 23 Jun 75.

Bloodletting Revived

Published in the June issue of this *Journal* is a delightful review of a modern text on the neurobiology of the leech. The place of the leech in medical history is discussed and its relation to bloodletting in general and the ancient humoral theory of disease.

Recently in *The New York Times* Doctor Lawrence K. Altman has written of the revival of bloodletting for a wide variety of modern ailments. "In a return to the Hippocratic practice of bloodletting," he wrote, "once believed to pure the body of bad humors and to restore the vigor of life, doctors in many countries now are bleeding patients to treat a myriad of disorders." In the ancient practice of bloodletting, all purged blood was cast away, while in the modern version portions are selectively reused. In this method, called plasmapheresis, the plasma is discarded while the cells are returned to the body. This is accomplished by a machine, which in effect is a large centrifuge. The blood is drawn in a continuous flow and the plasma is replaced in a process called plasma exchange by fresh-frozen plasma, albumin, or fractionated plasma proteins.

Significant improvement has been reported in patients affected by some 50 disorders as diverse as rheumatoid arthritis and mushroom poisoning. Plasmapheresis may need to be carried out repeatedly at a cost of up to \$2000 for each session. This is but another example of how burgeoning technology inflates the cost of medical care.

Plasmapheresis is not yet a proven cure for any illness, although it has relieved suffering and possibly prolonged lives. There are many anecdotal accounts of benefit, but very few large controlled trials. Plasmapheresis has a history going back almost 70 years, but because of the lack of automated equipment, the procedure was largely impractical. It required five hours to remove one liter of plasma.

The modern era began in the 1960s with the demonstrated value of the procedure in the management of macroglobulinemia. Automatic equipment was also devised during that decade,

which has made the procedure practical in a clinical setting. The use of varied new techniques now permit the removal of specific plasma components.

The cost of plasma is one of the elements in the high cost. There is also an explosion in utilization. Whereas 10,000 procedures were carried out in 1978, it had escalated four times in the next two years to 40,000 in 1980. If plasmapheresis (now also called apheresis) is deemed to be helpful in diseases affecting 700,000 citizens at a cost of \$40,000 each the first year and possibly \$18,000 per year thereafter, the cost could be astronomical, up to \$28 billion a year. This is an uneasy reminder of our national experience with kidney dialysis, coronary bypass, and neonatal ICUs.

Of the 50 conditions for which plasmapheresis has been tried, it will undoubtedly prove to be worthless in many. Among the varied disorders for which the procedure has been tried are Goodpasture's Syndrome, Guillain-Barre Syndrome, hypercholesterolemia, multiple sclerosis, myasthenia gravis, pemphigus vulgaris, primary biliary cirrhosis, systemic lupus erythematosus, toxin poisoning such as mushroom poisoning, rheumatoid arthritis, macroglobulinemia, and various immune disorders. In some diseases the process may enhance drug therapy.

Benefits may conceivably be possible where there are immunological abnormalities, abnormal compounds in the blood such as antibodies, toxins, or excesses of normal substances acting deleteriously.

Some physicians cynically view plasmapheresis as little more than a mechanical leech. There is indeed a need for stricter criteria for use. As one observer stated: "Though 400 years have passed since the need for such criteria was first expressed, there still are no firm guidelines for the procedure." Controlled studies are now under way for plasmapheresis in Rh incompatibility, thrombotic thrombocytopenic purpura, idiopathic thrombocytopenic purpura, rheumatoid arthritis, and several disorders of the central nervous system and kidneys.

The true place of plasmapheresis in the medical therapeutic scheme must await the outcome of such well-conducted controlled random series. In the meantime overenthusiastic use of this promising modality should be discouraged until its true worth in specific disorders has been demonstrated. In the meantime we shall watch this

emerging new technology with great interest.

Seebert J. Goldowsky, MD

Reference

Attman, L K: Bloodletting is revived for a wide variety of modern ills. NY Times: 27 Apr 82.

George W. Waterman, MD (1893-1982): An Appreciation

Doctor George W. Waterman died at the Rhode Island Hospital on April 29, 1982. He was 89 years of age. He probably had the widest international reputation and exposure of any member of the Rhode Island Medical Society at any time. His pioneering work in radiation treatment of cervical cancer was known throughout the world, translated into many languages, and included competitively in the annual reports from Stockholm.

He was born in Providence on April 16, 1893, and graduated Phi Beta Kappa from Brown University in 1915. In 1965, at his 50th commencement reunion, he was awarded an honorary degree, Doctor of Humane Letters, by his Alma Mater. The election to Phi Beta Kappa is not unique in the Waterman family. His brother, a history professor at Dartmouth, was elected to the honorary society before him, and his sister, a biology professor at Wellesley, was elected after him. He graduated from Cornell Medical College in 1919 and, after three years of residency training at the New York Hospital, opened his practice in Providence on the corner of Brown and Angell Streets. He was closely associated with Doctor Herman C. Pitts, and together they established the gynecological tumor clinic at the Rhode Island Hospital, the first in the United States. He published extensively, constantly improving his technique as new developments in external radiation became available. This method of treatment was discarded in 1972, after 50 years of experience, only when after-loading techniques became available.

He was elected President of the Providence Medical Association in 1949, and President of the Rhode Island Medical Society in 1957. He was appointed Chief of the Department of Gynecology at the Rhode Island Hospital in 1942. He established the gynecology residency program in 1944, and took great pride in the residents whom he trained. He resigned this position in 1953, but

he still remained very active in practice and in other related medical affairs. He was elected president of the medical staff of the Rhode Island Hospital in 1947, at the time when a major rebuilding program of the hospital was initiated. He performed the last operation in the old operating room, and the first operation in the new one. He tried desperately to encourage the Providence Lying-In Hospital to re-locate on the Rhode Island Hospital campus. Now, 30 years later, this has been achieved and will soon be a reality.

In 1951, he was elected to the first of three successive terms as President of the Rhode Island division of the American Cancer Society and served also on the national board of directors of the American Cancer Society. In 1966, the Cancer Society honored him by establishing the George W. Waterman Cancer Dialogue, an annual clinical program devoted to new concepts in cancer.

He belonged to many prestigious medical societies, and eventually became President of all of them! The Obstetrical Society of Boston, the New England Obstetrical and Gynecological Society, the New England Cancer Society, and the New England Surgical Society. He was also Vice President of the American Roentgen Ray Society.

He loved sailing and the sea, and pursued this activity into his eighties. He was an excellent navigator and helmsman, and occasionally he "crewed" on other boats. Several years ago, Doctor Waterman and three other elderly Rhode Island physicians were cruising off the Maine coast when a fire broke out, followed by the necessity to "abandon ship" — four men, afloat in a small dory four miles off the coast of Maine in the Atlantic Ocean, combined ages 270 years. They were eventually picked up by the Coast Guard and delivered safely to shore. Doctor Waterman's reflections concerning this experience were titled "Rub a dub dub, 4 docs in a tub."



George W. Waterman, MD
(1893-1982)

He was a pioneer, enterprising, energetic, and courageous, never fearing to travel uncharted waters either at sea or in his practice. He faced problems directly, never obliquely. He was a long-time insulin dependent diabetic and was twice operated on for cancer, and these illnesses he also faced directly. Challenge was important to him, and he pursued with vigor those activities which excited him. He was fiercely loyal to his friends and his ideals, and he leaves behind a mark of great achievement and accomplishment.

No man can long survive without support and love, and Helen Neikirk Waterman, his devoted

wife, supplied these ingredients beyond measure. He is also survived by a son George William Waterman, a daughter Carol N. Sigg, six grandchildren, and a great grandson.

The state of Rhode Island has lost an outstanding citizen, our medical community has lost a powerful and productive leader, and all who knew him have lost a dear and devoted friend. "That we may see further and more clearly, on his shoulders we stand."

Henry C. McDuff, Jr., MD

Providence Perinatal Health Consortium

To the Editor:

The May 1982 issue of the *Rhode Island Medical Journal* contained an article by Frank Thacker, *et al* titled "South Providence Health Needs Assessment." This paper presented an excellent summary of the disproportionately large health problems facing the residents of South Providence. The Health Needs Assessment Committee recommended the formation of three task forces to address: 1) Deficiencies in nutrition for all age groups; 2) Deficiencies in maternal and child health care, especially for teenage mothers and their children; and 3) Deficiencies in dental care for all age groups. We are pleased to report that a task force has been formed to address the second set of problems.

The Rhode Island *Annual Implementation Plan* (AIP) approved by the Statewide Health Coordinating Council (SHCC) in March 1981 includes a recommendation to "TARGET PRENATAL CARE SERVICES TO HIGH RISK GROUPS." The Implementation Committee of the SHCC further urged the following community agencies to band together as soon as possible in a working consortium to reduce preventable infant mortality and morbidity in Inner City Providence: 1) Providence Ambulatory Health Care Founda-

tion, 2) Rhode Island Medical Society, 3) Visiting Nurse Association of Providence, Cranston, Johnston and North Providence, 4) Women and Infants Hospital, 5) St. Joseph Hospital, 6) Rhode Island Department of Health, Division of Family Health, and 7) Rhode Island Department for Children and Their Families.

As a result, the Providence Perinatal Health Consortium was formed on February 11, 1982. Doctor William Hollinshead, Chief of Family Health, Rhode Island Department of Health, was selected as the Consortium's chairman. Since that time, the Consortium has been meeting on a regular basis to better define and address the perinatal health problems facing South Providence.

The SHCC Implementation Committee recognizes that this initiative represents but one of the many challenges which face the State and the region in terms of the perinatal health of women and infants. However, the SHCC Committee believes that this initiative addresses one of the more glaring perinatal problems in the State and that it will serve as a very useful demonstration project for the rest of the State.

William J. Waters, PhD
Assistant Director for Health Policy
Rhode Island Department of Health

RADIOGRAPHIC CASE OF THE MONTH

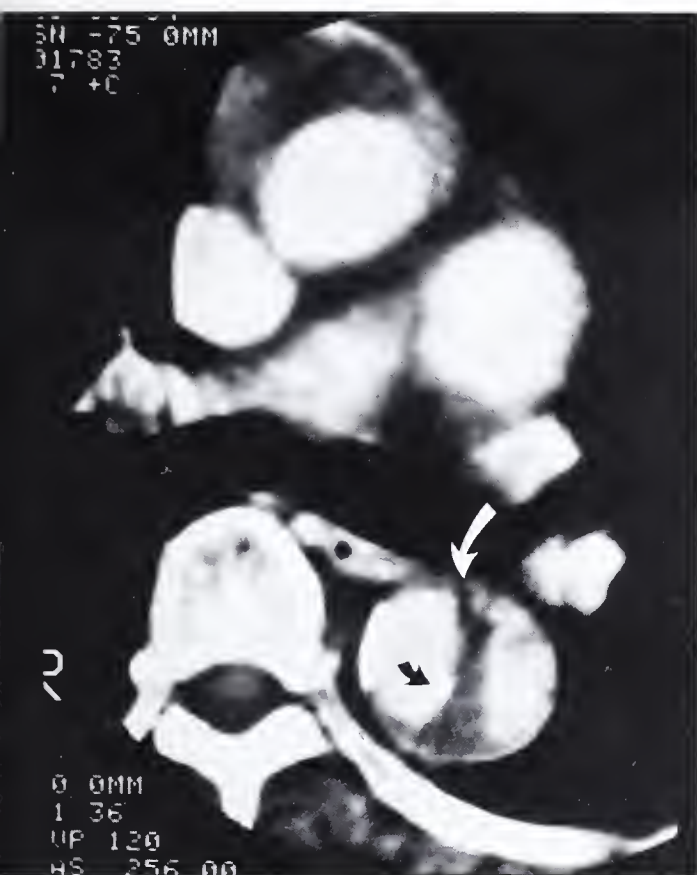


Figure 1



Figure 2

Howard R. Cohen, MD
Allan M. Deutsch, MD
Michael J. Ryvicker, MD
Sanford L. Schatz, MD

The Miriam Hospital
Providence, Rhode Island

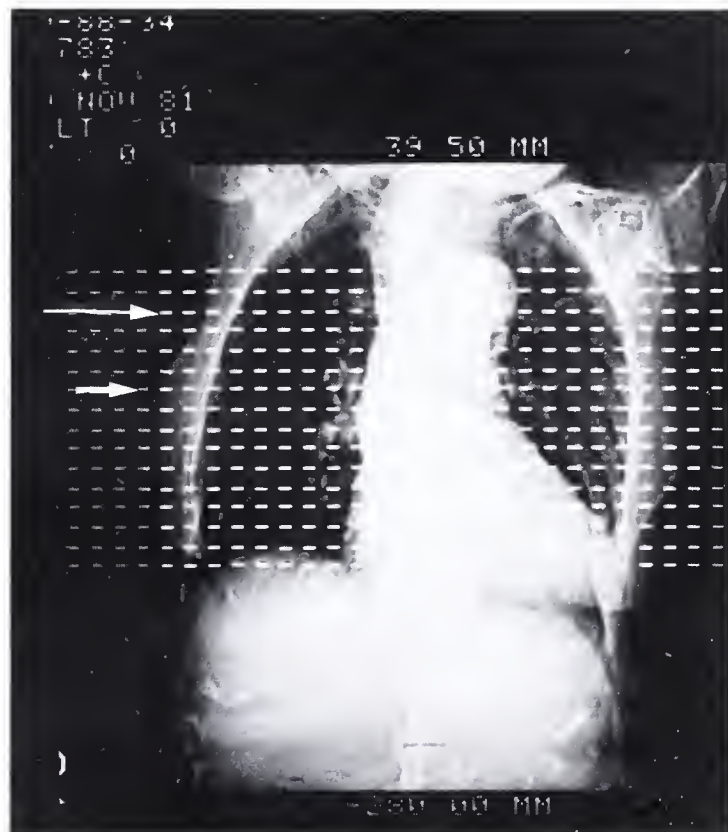


Figure 3

History

This is an 80 year old female with a 2½-week history of chest and shoulder pain. A left pleural effusion was tapped and found to be bloody. The lung scan and EKG were negative. An abdominal CT was performed to rule out occult malignancy. Following this a chest computed tomography (CT) was performed (Figs. 1-3).

For discussion turn to next page.

Radiographic Findings

The first film (Fig. 1) is a one centimeter thick axial slice through the chest 2cm above the aortic valve. This was obtained immediately after an intravenous bolus of contrast material. The ascending aorta shows a densely opacified section and a non-opacified section. The descending aorta shows two densely opacified sections separated by a septum (curved white arrow). On this septum is a fleck of calcium (curved black arrow). The second tomographic slice is through the aortic arch (Fig. 2) and likewise shows two opacified sections separated by a septum (curved white arrow). A scout film (Fig. 3) shows the levels at which the slices are obtained. (Figure 1 is at the long white arrow and Figure 2 is the short white arrow.) This film is in actuality an anteroposterior (AP) digital radiograph.

Diagnosis

Dissection of the thoracic aorta.

Discussion

CT is an accurate, minimally invasive means of diagnosing aortic dissection. It can be performed in lieu of a more invasive angiogram to rule out dissection. When the study is positive, a patient not considered a surgical candidate is spared an

angiogram. In the surgical candidate, if entry sites can be established, angiography can be bypassed.

There are four findings in CT of aortic dissection: 1) increase in aortic caliber, 2) intimal flap, 3) false channel, and 4) displaced intimal calcium.

An intimal flap is seen here arising two centimeters above the aortic valve (Fig. 1). The false channel is partially clotted and hence is unopacified, while the true channel is densely opacified. In the arch (Fig. 2), both channels are opacified. An intimal flap (curved white arrow) is well seen between the channels in both slices. A displaced piece of intimal calcium (curved black arrow) is seen along the flap in the descending aorta (Fig. 1).

Computed tomography is a faster, safer, and easier way of evaluating for aortic dissection. For some patients, angiography can be avoided.

References

- ¹ Godwin V, Herfkens R, et al: Evaluation of dissections and aneurysms of the thoracic aorta by conventional and dynamic CT scanning. *Rad* 136:125-133, Jul 80.
- ² Gross S, Barr L, et al: Computed tomography in dissection of the thoracic aorta. *Rad* 136:135-139, Jul 1980.
- ³ Egan T, Neiman H, et al: Computed tomography in the diagnosis of aortic dissection or traumatic injury. *Rad* 136:141-146, Jul 80.
- ⁴ Larde D, Belloir C, et al: Computed tomography of aortic dissection. *Rad* 136:147-151, Jul 80.

Peptic Ulcer Disease: Review and Update

The Present State of Ulcer Diagnosis and Therapy Are Outlined

Douglas Levine, MD

Peptic ulcer disease (PUD) is an important disease entity which concerns many physicians in their internal medicine and gastroenterology practices. Estimates of disease prevalence as high as 10 per cent in the United States (USA) have been made,¹ which translates to an enormous economic loss in terms of health care dollars and individuals' wage loss and absenteeism. These facts, especially in light of continuing progress in the understanding of etiology and pathogenesis, roentgenologic and endoscopic diagnostic techniques, and therapies of ulcers, warrant a comprehensive review of the subject.¹⁻⁷

The great majority of patients with PUD enjoy a good prognosis,^{8, 9} eventually healing their ulcers without the complications of bleeding, perforation, or obstruction that might necessitate surgery. This review, therefore, shall be concerned chiefly with definition, epidemiology, natural history, pathophysiology, etiology, methods of diagnosis, and pharmacotherapies as they relate to medical management of patients with PUD. Reviews of surgical therapies may be found elsewhere.^{1, 2, 4, 5, 10, 11}

Douglas Levine, MD, formerly a resident at Rhode Island Hospital, Providence, Rhode Island; presently in fellowship training in gastroenterology at the University of Washington, Seattle, Washington.

Definition

A peptic ulcer constitutes a discrete, anatomical deformity (or deformities) of the mucosal lining of the gastrointestinal tract in an area in contact with acid and pepsin. It may be classified by depth (superficial, deep, penetrating, or perforating), location (esophagus, stomach, duodenum or, post-gastroenterostomy, jejunum), and time course (acute or chronic). Depth and time course influence therapeutic decisions. Though arguments exist that gastric and duodenal ulcer represent the same disease,¹² our present understanding about associated malignancy with the former necessitates diverging diagnostic and management options.

Endoscopically-observed mucosal lesions defined as "gastroduodenitis" coupled with histologic and scanning electron microscope (SEM) studies of gut mucosa suggest a whole spectrum of lesions between normal mucosa and a true ulcer.¹³⁻¹⁵ Precursor lesions may include defects initially observed only by SEM, followed by light microscopic evidence of inflammation (without endoscopically-observed inflammation), followed, in turn, by gastroduodenitis (histologic and endoscopic inflammation) proceeding to a peptic ulcer.

Epidemiology and Natural History

The incidence of PUD in the USA is approximately 3 per 1000 population with about 200,000 newly diagnosed cases per year.¹⁶ Overall incidence is decreasing,⁴ but is decreasing more rapidly in males than in females.³ Duodenal

ulcers occur four times more frequently than gastric ulcers and are associated with a higher male : female relative incidence.¹ As many as 12 per cent of males and 9 per cent of females in the USA have been told they have had PUD.¹⁶

Gastric, but not duodenal, ulcer is more prevalent in lower socioeconomic groups.¹ Heredofamilial associations exist for both gastric and duodenal ulcer and are further suggested by concordance studies in twins.^{3, 4} PUD is associated with concomitant diseases: chronic obstructive lung disease, tuberculosis, rheumatoid arthritis, hyperthyroidism, coronary artery disease, regional enteritis, aortic aneurysm, myasthenia gravis, polycythemia vera, hyperparathyroidism, and others.¹⁻³

PUD has a benign long-term course and may, in fact, have an intrinsically self-limited natural history.^{8, 9} Therapeutic trials must take into account placebo phenomena and the lack of correlation between symptoms and presence or extent of PUD.^{8, 17} Patients have had their ulcers heal while taking a placebo, medication, or both while continuing to experience dyspepsia. Prognosis of gastric ulcer is worse than that of duodenal ulcer, and mortality is increased only within the first two years of diagnosis.⁹ Patients with

duodenal ulcer were hospitalized less frequently in the period 1970-1978, but hospitalizations for gastric ulcer remained the same.¹⁸

Pathophysiology and Etiology

The genesis of an ulcer is dependent upon cellular factors and acid-induced activation of pepsinogen to pepsin. Acid, in the form of hydrochloric acid, is provided by gastric parietal cells, which can be subjected to a variety of acid-producing stimuli (Fig. 1). Vagal efferents of the central nervous system, gastrin, food and possibly drugs are implicated in providing the cholinergic stimulus directly, or indirectly (via histamine mediation), to increase parietal cell membrane-bound adenyl cyclase, which increases cellular cyclic AMP and generates acid secretion.^{1, 7, 19, 20}

Mechanical factors^{4, 5} play a role in ulcer formation. There may be increased acid secretion capacity due to parietal cell hyperplasia or increased pepsinogen leading to duodenal ulcer. Increased responsiveness to acid secretagogues or an increased drive to secrete acid (secondary to elevated gastrin or increased vagal tone) may exist. Rapid gastric emptying of acid-pepsin juices contribute to duodenal ulcer formation. Defective duodenal defense systems (diminished cyto-

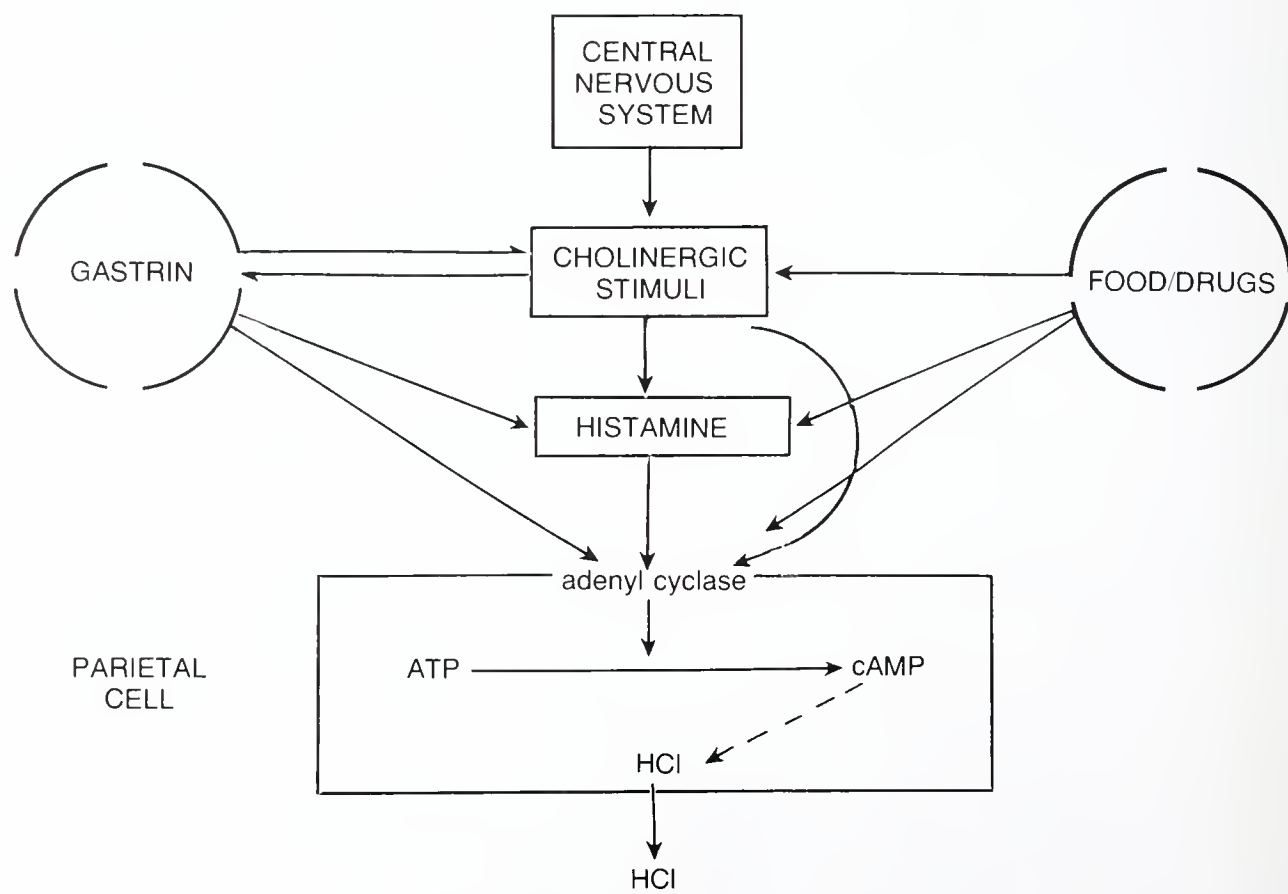


Figure 1. Stimuli of gastric parietal cell acid secretion.

protection or mucosal resistance, decreased bicarbonate secretion and acid neutralization capability, and decreased secretin) may be responsible for ulcer formation.

Gastric ulcer can be associated with three major mechanical dysfunctions: (i) excessive reflux of duodenal contents into the stomach, (ii) antral stasis (increasing gastrin production), and (iii) gastritis (causing a mucosal abnormality permitting acid back-diffusion).

Psychologic characteristics of the ulcer-prone individual have been described,^{4, 6} but existing scientific evidence fails to document psychologic stress or personality type as being etiologic in PUD.^{2, 5} The role of environment in ulcerogenesis is not clear.⁵ Females, though not immune to PUD, are relatively protected compared to males, especially during pregnancy and premenopause, suggesting a hormonal influence on ulcer development.⁵

Various endogenous substances are implicated in PUD, the induction or inhibition of which are the goals of some pharmacotherapies: pepsinogen, gastrin, cAMP, cGMP,⁷ and prostaglandins.^{21, 22} Aspirin induces gastric ulcer formation, but is not implicated in duodenal ulcer.^{2, 4} Cigarette smoking is a risk factor in PUD and slows the rate of healing,⁴ possibly by a nicotine-mediated decrement in pancreatic bicarbonate secretion. Caffeine-containing beverages have not been definitively shown to be ulcerogenic,⁵ but were shown to be associated with increased risk of PUD in a population that consumed coffee and cola drinks during college.^{2, 4} It should be noted that caffeine is a weak gastric acid secreting stimulus; decaffeinated coffee induces as much acid secretion as the caffeinated variety.² Milk consumption by a college-age population, in contradistinction to coffee and cola drinkers, was correlated with a decreased incidence of PUD in later life.⁴ This seems paradoxical in light of evidence that calcium causes acid "rebound" mediated by increased gastrin production.⁸ Ethanol has no effect on ulcerogenesis.⁵ The role of adrenal corticosteroids in ulcer formation is still controversial.²

The association of PUD with a variety of other disease states suggests, if not a polygenic influence, diverse etiologies in ulcer formation: multiple endocrine adenomatosis and Zollinger-Ellison syndrome (gastrinomas), systemic mastocytosis and other histamine excess syndromes, hyperparathyroidism (hypercalcemia and hypergastrinemia), cystic fibrosis (deranged pancreatic

bicarbonate secretion), alpha-1-antitrypsin deficiency (impaired mucosal resistance), carcinoid syndrome (serotonin excess), combined gastric and duodenal ulcer syndrome, hyperpepsinogenemic duodenal ulcer (with or without postprandial hypergastrinemia), normopepsinogenemic duodenal ulcer (with or without rapid gastric emptying), PUD of childhood, esophageal ulcer syndrome, immunologic forms of PUD (antibody to secretory IgA and immunoglobulin-induced acid secretion), PUD-COPD syndrome, PUD-coronary artery disease syndrome, PUD with renal stones (without hyperparathyroidism), and Meckel's diverticulum.³

Diagnosis

Patients presenting with duodenal ulcer may provide a classic history of abdominal pain occurring 1-3 hours after eating, usually being relieved by food or antacids. There is no pain on awakening in the morning, but nocturnal symptoms can occur. There may be an associated history of weight loss. Other patients with duodenal ulcer, and patients with gastric ulcer, may have more atypical histories. Though pain is the symptom prompting patients to seek medical attention, it correlated poorly with presence or absence of PUD, or the degree of healing or non-healing of a previously diagnosed ulcer.^{13, 15, 23} The mechanisms of pain in PUD are poorly understood, but may result from associated duodenitis.^{15, 24} Physical examination can, at best, establish diagnoses or suspicions of a bleeding or perforating peptic ulcer. Gastric acid secretory tests, though useful in establishing diagnoses of hypersecretory states,²⁵ are not useful in diagnosing PUD.^{1, 26}

Roentgenologic or endoscopic procedures are necessary to diagnose PUD, and controversies exist about which is the procedure of choice.⁵ Existing data would indicate that, if an x-ray procedure were to be done, it should be a so-called double contrast barium meal as opposed to a routine barium swallow and upper gastrointestinal (GI) series. Double contrast, or air contrast, techniques significantly reduce diagnostic error (false-negative rate) from 20-25 per cent (by routine barium meal) down to 6-8 per cent (double contrast)²⁷⁻²⁹ based on endoscopic arbitration as an assumed "gold standard." An older study documented a diagnostic error reduction from 49 per cent down to 16 per cent when double contrast techniques were deployed.³⁰ Still another study attests to the accuracy of a double contrast barium meal in describing only 7 pa-

tients (5 per cent) with endoscopically visualized ulcers among 140 consecutive patients with "x-ray negative dyspepsia."³¹

Advantages of double contrast barium meal are the ease, decreased time for examination, relative safety, lack of need for pre-medication and relative expense when compared to esophagogastroduodenoscopy. Disadvantages are diagnostic inaccuracy in ulcers that are shallow; concealed in folds; filled with blood, necrotic debris, mucus or food; and obscured by edema, spasm, or truncal adipose tissue in the obese.¹⁶ Roentgenologic techniques are relatively contraindicated in pregnancy. The limits of resolution of an ulcer crater by a barium meal is approximately 4 mm.

Assessment of diagnostic accuracy of a double contrast barium meal is difficult based on existing literature because of lack of comparability of studies. There are differences in arbitration of the existence of PUD, selection of patients, and experience with the double contrast technique. Though superficial mucosal lesions can be diagnosed at some centers,^{5, 27} shallow gastric ulcers may be missed 5-10 per cent of the time elsewhere.¹⁶ Estimates of overall accuracy in identifying the presence of duodenal or gastric ulcer has ranged from 70 to 90 per cent.^{4, 16, 25} In assessment of malignancy or benignancy of gastric ulcers, double contrast barium meal can be as high as 96-98 per cent accurate based on endoscopic biopsy arbitration.^{5, 16}

Upper endoscopy^{4, 24} is facilitated by both forward and side-viewing fiberoptic models ranging in external diameter from 8-13 mm. Choice of a particular instrument affects the need for anesthesia and ease of passing. Advantages of endoscopy^{4, 5, 32-34} compared to roentgen techniques include: (i) obtaining a tissue diagnosis in gastric ulcer (combined brushings and numerous biopsies permit 98-99 per cent accuracy in establishing malignancy or benignancy), (ii) usefulness in patients with marginal ulcers, previous GI tract surgery, distended antrum, deformed duodenal bulbs, healed ulcers, esophagitis, and erosions, (iii) usefulness in determining presence or absence of bile, (iv) ability to make direct, visual observations and photographs, and (v) probable superiority in therapeutic trials on ulcer healing, although challenges have been made as to reliability of endoscopic determination of ulcer crater size.³⁵

Disadvantages of endoscopy include: (i) a finite but small mortality of 0.003-0.004 per cent,⁵ (ii) complications resulting from effects of drugs

used to sedate patients, such as myocardial infarction and aspiration, as well as scope impaction and perforation, (iii) inability to pass a scope past strictures proximal to a suspected ulcer,¹⁶ (iv) relative expense compared to a barium meal, and (v) endoscopist inexperience. Endoscopy is contraindicated in patients with suspected perforation because of the practice of air insufflation in upper endoscopy.

Controversy

A "rays vs scopes"⁵ controversy continues to rage about the best diagnostic approach to PUD. Some authorities state that roentgenologic techniques are not much worse than endoscopy in diagnostic accuracy, are safer, are less expensive, and are probably the best first approach to a patient with a suspected upper GI lesion.^{27, 29, 31, 36, 37} Other authorities feel that endoscopy is far superior to the roentgen techniques and should possibly supplant them.^{24, 34, 38, 39} Existing studies are inadequate absolutely to judge relative superiority of the two diagnostic techniques. Certainly, clinical circumstances and conditions of various patients, such as those previously described, may leave only one diagnostic option available to the clinician.

Given one authority's estimate that about 10 per cent of ulcers diagnosed by one technique will be missed by the other,⁷ and a patient's clinical condition and the availability of quality x-ray and endoscopy services, a diagnostic approach can be defined (Fig. 2). In the previously healthy patient complaining of dyspepsia, empiric therapy with antacids might be commenced while arrangements for diagnostic tests are made. The double contrast barium meal is a reasonable initial study and should yield any of five results (or combinations thereof): (i) duodenal ulcer, (ii) gastritis or other mucosal lesions, (iii) gastric ulcer, (iv) an inadequate or suspicious study, or other pathology (eg intraluminal filling defects, compressive mass lesion), and (v) normal study.

The findings would lead the clinician to varying courses of action. A duodenal ulcer requires no additional, immediate diagnostic studies and therapy can begin. A diagnosis of gastritis would require clinical judgement as to pursuing other tests; if a shallow gastric ulcer were suspected, endoscopy might be performed, but if clinical circumstances were compatible with a finding of gastritis, a vigorous therapeutic regimen might be started without further diagnostic manipulations. Diagnosing a gastric ulcer would necessitate continuing the evaluation with endos-

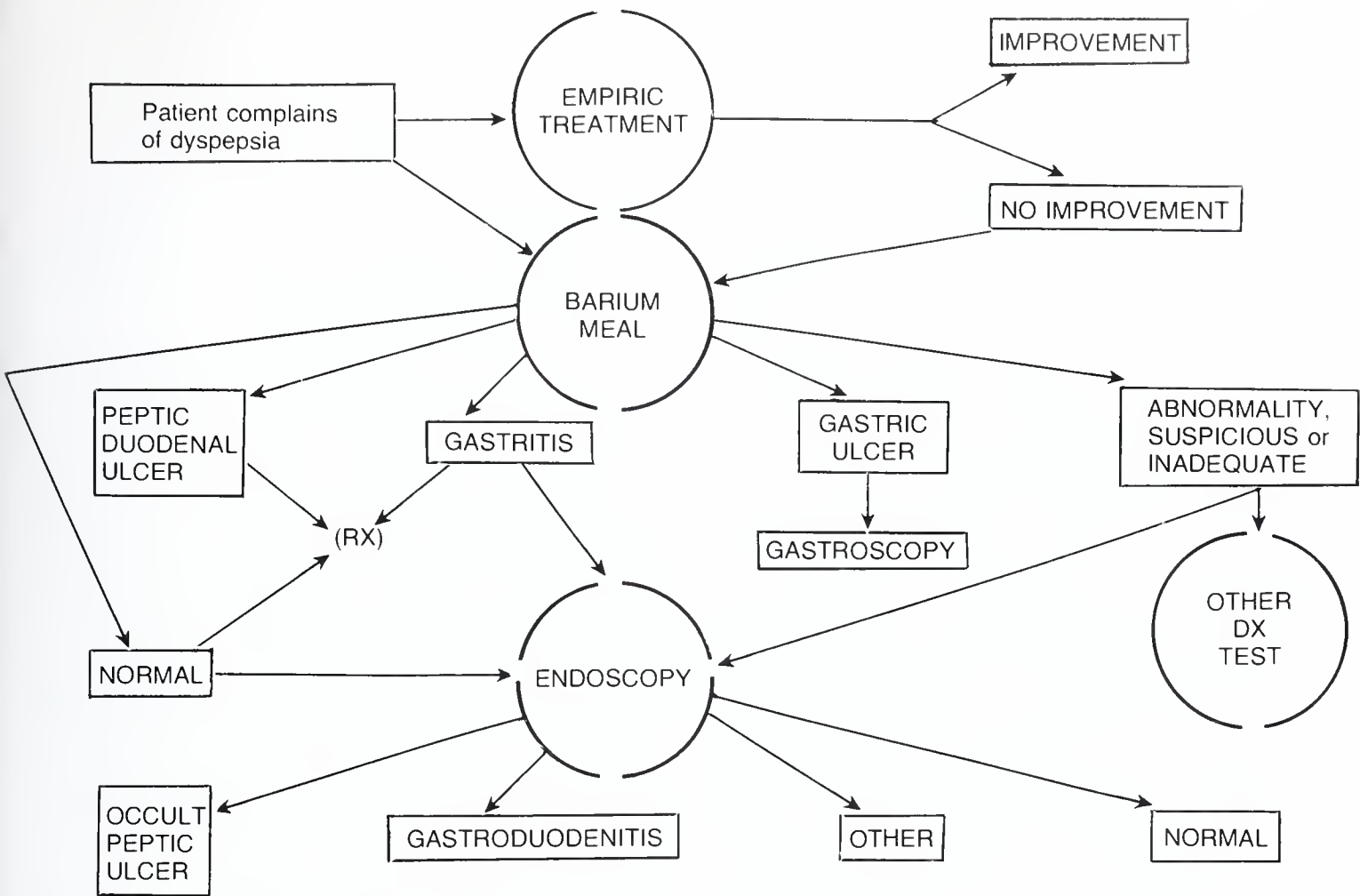


Figure 2. Diagnostic approach to dyspepsia.

copy, so that biopsies and brushings could be obtained to rule in or rule out a malignant tumor, unless the patient's condition would make the procedure too hazardous. Findings of other pathological conditions, a suspicious lesion, or a technically inadequate study would necessitate other diagnostic tests that might include endoscopy. A "normal" double contrast barium meal might lead the clinician to explore other options, including empiric therapy (skipping further diagnostic studies), performing other tests (eg ultrasound, oral cholecystogram), or proceeding with upper endoscopy to seek occult PUD.

Therapy

The goals of treatment of PUD are to hasten healing, decrease symptoms, prevent complications (hemorrhage, perforation, penetration, and obstruction), and prevent recurrences. Methods of healing based on the pathophysiology of PUD necessarily involve: (i) acid neutralization, (ii) reduction of acid secretion and pepsin formation, and (iii) bolstering gut mucosal resistance.

Substance avoidance⁵ in addition to selected pharmacotherapy is recommended. Smoking and aspirin use should be discontinued. Though coffee, tea, and alcohol are not directly linked to ulcerogenesis, their propensity toward acid stimulation is of concern, so that they should be avoided. "Bland" diets are no longer recommended, but symptomatic exacerbants should not be ingested.⁴⁰ Milk and calcium-containing products should be avoided; despite the immediate acid buffering capacity afforded by milk proteins, calcium-induced gastric secretion causes a subsequent "rebound" hyperacidity.⁸ Bedtime meals and snacks should not be taken because nocturnal hyperacidity may result. A theoretical dietary manipulation includes restriction of carbohydrate consumption which might thereby slow gastric emptying.⁴¹ Geographic differences in incidence of PUD has raised the possibility of the existence of natural dietary ulcer preventive factor.⁴¹

Numerous pharmacotherapeutic regimens exist, but ascertainment of the most effective and safe drug treatment schedules must await conclu-

sion of ongoing and future clinical trials comparing the standard and newly available agents. In interpreting the results of these trials, be reminded of several critical considerations: (i) The natural history of PUD in the majority of patients is benign. (ii) On average, 80 per cent of patients are relatively easily and successfully treated with existing medical regimens. (iii) A significant placebo response occurs in patients with PUD.¹⁷ (iv) Some studies have deployed roentgenologic, as opposed to endoscopic, techniques to judge therapeutic efficacy. (v) Some studies define partial, as opposed to complete, healing as a therapeutic endpoint.³⁵ (vi) Many studies permit the use of antacid tablets for both treatment and control groups on a prn basis for symptoms.

Antacids

Antacids have been shown to produce healing in 78 per cent of patients treated with amounts exceeding 1000 mEq of acid-reducing capacity per day (144 mEq 1 and 3 hours after meals and at hour of sleep) as compared to 30-40 per cent healing in patients treated with placebo.⁴² This compares with an average 70-90 per cent cure rate with antacids.¹⁰ The mechanism of action of antacids includes neutralization (NaHCO_3 , CaCO_3 , MgO , Mg(OH)_2 , MgCO_3), buffering (Al(OH)_3), and ion exchange ($\text{Na-carboxymethylcellulose resin}$). Liquids generally offer more reducing capacity than antacid tablets.⁴³ Tables describing antacid reducing equivalents and ion content may be found elsewhere.^{1, 4, 43, 44}

Side effects reported with antacid regimens^{5, 10, 45} seem to relate to the chief ion in the preparation. Magnesium is associated with diarrhea, hypokalemia, hypermagnesemia (especially in renal insufficiency), complexation of enteric iron, and an iron deficiency state. Aluminum preparations can cause constipation, hypophosphatemia (symptoms and signs including weakness, anemia, tetany, apnea, hypercalciuria, and bone resorption), decreased gastric emptying, luminal concretions (with impaction, fecaloma, colonic perforation, stercoral peritonitis), encephalopathy, and impaired absorption of digoxin, INH, and tetracycline. Calcium can be associated with milk-alkali syndrome, nephrocalcinosis, "rebound" hyperacidity, and antagonism of digoxin effect. Sodium, of course, can be detrimental in salt and water retention states, thereby exacerbating edema, effusions, hypertension, and congestive heart failure. Bicarbonate has been associated with systemic metabolic alkalosis and en-

hanced effect of drugs such as amphetamines and quinidine. Trisilicate-containing antacids may cause nephrolithiasis. The alkali of all antacids may elevate gastric pH enough to effect premature release of enteric-coated medications, as well as affect gut absorption of several others: dicumarol and levodopa absorption are enhanced, whereas phenothiazines, INH, nalidixic acid, nitrofurantoin, penicillins, and sulfa drugs absorption are diminished.

Secretory Acid, Pepsin, and Gastrin Reduction

Corticotrophic agents, including sulpiride, chlorbenzoxamine, and diazepam, may modulate the central nervous system role in stimulating gastric acid secretion. Sulpiride causes decrements in serum gastrin levels.^{3, 46} Proglumide is an amino acid agent that may occupy gastrin receptor sites,⁴⁶ thereby reducing parietal cell stimulation to secrete acid. Agents such as carrageenan and amylopectin interfere with pepsin. Tricyclic agents (such as antidepressant imipramine and nonantidepressant pirenzepine), besides treating coincident depressive illness in ulcer patients, may reduce acid secretion via anticholinergic or histamine receptor blockade, or both.^{3, 46} Exogenously administered prostaglandins and various gut hormones,^{4, 22} including vasoactive intestinal peptide, secretin, urogastrome and glucagon, have influenced acid secretion. Metoclopramide and loperamide hasten gastric emptying and may effect beneficial changes in acid, pepsin and gastrin secretion.

Anticholinergic agents, such as propantheline, block parietal cell acetylcholine receptors, reducing acid secretion and pepsin production. It is sometimes a useful adjunct to antacid or cimetidine therapy when given as a bedtime dose, further reducing nocturnal gastric acidity. The effect is apparently dose-limited: toxic doses produce no more acid reduction than a low dose (15 mg).⁴⁷ Side effects include dry mouth, blurred vision, urinary retention and possible exacerbations of reflux esophagitis (by lowering the pressure of the lower esophageal sphincter). The drugs are contraindicated in glaucoma and urinary or gastric retention.

The histamine (H_2) receptor blocker, cimetidine, is an exhaustively scrutinized agent.^{5, 10, 21, 45, 46, 48-50} Other H_2 blocker agents, such as ranitidine^{51, 52} and tiotidine, are undergoing trials. Besides being more potent and longer-acting they may have fewer side effects. Cimetidine treatment schedules have varied from 800-1600 mg per day (in 4-times-daily dosing

format) for periods ranging 4-8 weeks. Complete healing of ulcers has been documented in up to 85 per cent of patients, and in patients with duodenitis.¹⁵ Much higher doses are required in patients with PUD in association with Zollinger-Ellison and other hypersecretory syndromes. The use of cimetidine in ulcer prevention is discussed later.

Side effects of cimetidine, though occurring in the minority of recipients, are pansystemic and include: constitutional (flushing, fever, fatigue, myalgias, rash, headache), endocrine (gynecomastia, galactorrhea, hyperprolactinemia, oligospermia, impotence, impaired glucose tolerance, possible change in androgen and estrogen levels), central nervous system (confusion, agitation, hallucinations), hematologic (thrombocytopenia, reversible bone marrow suppression, potentiation of warfarin), renal (elevated serum creatinine, rare interstitial nephritis), gastrointestinal (flatulence, diarrhea, constipation, abnormal liver enzymes, decreased intrinsic factor secretion, impaired vitamin B₁₂ absorption, effects on portal blood flow), cardiac (paroxysmal tachycardia), and immunologic (augmented cell mediated immunity) derangements.

Mucosal Resistance and Cytoprotection

Many agents that apparently provide gastric and duodenal mucosal protection have been studied and used clinically in Europe and are becoming available in the USA. Carbenoxolone,^{4, 11, 46, 53} a licorice extract, has been used successfully in the treatment of PUD with a dosage regimen of 100 mg before meal and at bedtime for two weeks before decreasing to a dose of 50 mg. Its mechanism of action is thought to be that of affecting mucosal integrity by decreasing mucosal cell turnover and increasing mucus production. This aldosterone-like agent has predictable side effects, including hypokalemia, salt and water retention and hypertension.

Exogenously administered prostaglandins,^{4, 22} besides decreasing acid secretion, have cytoprotective effects, possibly by local bicarbonate increments, increased mucus production, changes in mucosal blood flow and possible effects on cellular junctions. Another agent, geranyl farnesyl acetate,⁵³ improves mucosal resistance and has been used in the treatment of gastric ulcer.

Bismuth compounds^{4, 46, 54} are effective agents in ulcer treatment. They form protective complexes at the bases of ulcers, bind pepsin and are mucogenic. Dosage regimens are usually 5 ml before meals and at bedtime. Disadvantages in-

clude development of black stools, masking a potentially useful sign in patients who may fail treatment and develop bleeding and melena. Other problems are blackening of the tongue and distasteful preparations. Of concern, as well, is the association of organic brain syndrome with bismuth-containing skin cremes.

An agent recently released in the USA, sucralfate,^{5, 46} is a sulfated polysaccharide that possesses action similar to that of bismuth compounds. Sucralfate reacts with proteinaceous exudates at the bases of ulcers and creates a barrier to gastric acid and pepsin. It has been shown to be as effective as cimetidine in the treatment of duodenal ulcer⁵⁵ and is superior to placebo in a multicenter, double-blind trial⁵⁶ in which both treatment and control groups were permitted antacid tablets as necessary for their symptoms. Recommended dosage regimen is one gram by mouth one hour before meals and at bedtime for 6-8 weeks. The chief advantage of this agent is the apparent lack of systemic absorption. Side effects occur in less than 10 per cent of patients and include constipation (most commonly), as well as diarrhea, nausea, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

Therapy of Choice

Combinations of these pharmacotherapies are recommended in Zollinger-Ellison syndrome, hypersecretory states, and intractable ulcer disease. Numerous studies have deployed antacids in addition to the investigational agents; it is difficult to assess any additive effects between antacids and these drugs. Combinations of cimetidine and propantheline have been shown to additively decrease acid secretion.⁴⁷

No single therapy can be identified as the most efficacious agent in the treatment of PUD. In literature very similar rates of healing are described, in the 80 per cent range, with antacid, cimetidine, carbenoxolone, bismuth, and sucralfate therapy,^{26, 45, 55} all of which are superior to placebo. Reaching a statistically significant difference in ulcer healing in any head-to-head therapeutic trial would, therefore, be very difficult given these already high rates of healing, and would probably require extraordinarily large numbers of patients.

Given the existing information of PUD pharmacotherapy, one rationale in choosing a treatment regimen would require examination of relative ease of administration (which would increase patient compliance), frequency of side

effects, availability, and cost. For example, the frequency of side effects was greater with antacids than with cimetidine in two groups of patients simultaneously treated with these agents.⁵⁷ However, there is suboptimal data from the literature concerning minimally effective doses in anti-ulcer regimens, which might certainly be associated with lower incidences of side effects and drug cost. Only with this information and additional experience with the more potent and longer-acting H₂ receptor antagonists and cytoprotective agents will the options in the therapy of PUD become more clearly defined.

Ulcer Relapse Prevention

Though PUD tends to have a benign prognosis, many patients are plagued by relapses. Cimetidine in doses of 400-800 mg per day have been shown to lower the rate of relapse (6-20 per cent) for as long as 18 months, as opposed to patients receiving no prophylactic medicine (80 per cent).^{8, 10, 45, 46, 58} Patients completing prophylactic treatment are at no greater risk for relapse than patients who do not.⁵⁹ The side effects of long-term cimetidine use await study.

Bismuth and carbenoxolone have been used as prophylactic agents,⁴⁶ but studies with antacids alone have not been conducted. As the roles of new H₂ receptor antagonists and cytoprotective agents become better defined in the primary treatment of peptic ulcer, additional studies will be required to ascertain their role in PUD prophylaxis.

References

- ¹ Isenberg JI: Peptic ulcer disease. *Postgrad Med* 57(1):163-169, Jan 75.
- ² Grossman MI: *Peptic Ulcer*. Chicago, Year Book Medical, 1981.
- ³ UCLA Conference: Peptic ulcer: new therapies, new diseases. *Ann Int Med* 95(15):609-627, Nov 81.
- ⁴ UCLA Conference: A new look at peptic ulcer. *Ann Int Med* 84(1):57-67, Jan 76.
- ⁵ McHardy G: Symposium: peptic ulcer disease. Introduction. *South Med J* 72(3):251-252, Mar 79.
- ⁶ Eisenberg EM: *Ulcers*. Boston, GK Hall, 1979.
- ⁷ Grossman MI (Chairman): Work group II: peptic diseases. *Gastroenterology* 69(5):1071-1087, Nov 75.
- ⁸ Eisenberg JI: Long-term management of duodenal ulcer. *Hosp Prac* 15(1):63-65, 70, Jan 80.
- ⁹ Bonnevie O: Survival in peptic ulcer. *Gastroenterology* 75(6):1055-1060, Dec 78.
- ¹⁰ Symposium on duodenal peptic ulceration—1980. *Mayo Clin Proc* 55(1):3-32, Jan 80.
- ¹¹ Wilson DE, Siegfried JD: Hospital treatment of peptic ulcer disease. *Drug Therapy*: 22, Oct 79.
- ¹² Kirk RM: Are gastric and duodenal ulcers separate diseases or do they form a continuum. *Dig Dis Sci* 26(2):149-154, Feb 81.
- ¹³ Greenlaw R, Sheahan DG, DeLuca V, et al: Gastroduodenitis: a broader concept of peptic ulcer disease. *Dig Dis Sci* 25(9):660-672, Sep 80.
- ¹⁴ Spiro HM: *Clinical Gastroenterology*, ed 2. New York, Macmillan, 1977.

- ¹⁵ Danielsson A, Ek B, Nyhlin H, et al: The relationship between active peptic ulcer, endoscopic duodenitis and symptomatic state after treatment with cimetidine. *Ann Clin Res* 12(1):4-12, Feb 80.
- ¹⁶ Sleisenger MH, Fordtran JS: *Gastrointestinal Disease: Pathophysiology Diagnosis Management*, ed 2. Philadelphia, Saunders, 1978.
- ¹⁷ Gudjonsson B, Spiro HM: Response to placebos in ulcer disease. *Amer J Med* 65(3):399-402, Sep 78.
- ¹⁸ Elashoff JD, Grossman MI: Trends in hospital admissions and death rates for peptic ulcer in the United States from 1970 to 1978. *Gastroenterology* 78(2):280-285, Feb 80.
- ¹⁹ Brooks FP (ed): *Gastrointestinal Pathophysiology*, ed 2. New York, Oxford University Press, 1978.
- ²⁰ Myren J, Schrupf E (eds): Symposium on pathophysiology and drug therapy of peptic ulcer. *Scand J Gastro* 15(suppl 58):1, 1980.
- ²¹ Almy TP, Bonkowsky HL: Progress and prospects in digestive disease. *Drug Therapy*: 57, Feb 80.
- ²² Code CF: Prostaglandins and gastric ulcer. *Hosp Prac* 15(7):62-65, Jul 80.
- ²³ Misiewicz JJ: Peptic ulceration and its correlation with symptoms. *Clin Gastroenterol* 7(3):571-582, Sep 78.
- ²⁴ Belber JP: Endoscopic examination of the duodenal bulb: a comparison with X-ray. *Gastroenterology* 61:55-61, Jul 71.
- ²⁵ Silverstein FE: Peptic ulcer: an overview of diagnosis. *Hosp Prac* 14(11):78-83, Nov 79.
- ²⁶ Dean HA, Robertson WS, Rosenoer VM: Gastric acid secretory tests revisited, editorial. *Lahey Clinic Found Bull* 26(4):180-184, Oct-Dec 77.
- ²⁷ Laufer I: Assessment of the accuracy of double contrast gastro-duodenal radiology. *Gastroenterology* 71(5):874-878, Nov 76.
- ²⁸ Laufer I, Mullens JE, Hamilton J: The diagnostic accuracy of barium studies of the stomach and duodenum — correlation with endoscopy. *Radiology* 115(3):569-573, Jun 75.
- ²⁹ Lavelle MI, Venables CW, Douglas AP, et al: A comparative study of double contrast and single contrast barium meals with endoscopic arbitration in the diagnosis of peptic ulcer. *Clin Radiol* 28(6):625-627, Nov 77.
- ³⁰ Moule B, et al: Proceedings: A comparative study of the diagnostic value of upper gastrointestinal endoscopy and radiology. *Gut* 16(5):411, May 75.
- ³¹ Salter RH: X-ray negative dyspepsia. *Brit Med J* 2(6078):235-236, 23 Jun 77.
- ³² Barnes RJ, Gear MWL, Nicol A, et al: Study of dyspepsia in a general practice as assessed by endoscopy and radiology. *Brit Med J* 4:214-216, 26 Oct 74.
- ³³ McColl I: The value of upper gastro-intestinal fibrescopy. *Br J Surg* 59:793-794, Oct 72.
- ³⁴ Schiller KF: Diagnostic problems in peptic ulceration: an endoscopist's view. *Postgrad Med J* 51(suppl 5):7-8, 75.
- ³⁵ Sonnenberg A, Giger M, Kern L, et al: How reliable is determination of ulcer size by endoscopy? *Brit Med J* 2:1322-1324, 24 Nov 79.
- ³⁶ Hedemand N, et al: X-ray examination or endoscopy? A blind prospective study including barium meals, double contrast examination and endoscopy of esophagus, stomach, and duodenum. *Gastrointest Radiol* 1(4):331-334, 25 May 77.
- ³⁷ Rogers IM, Moule B, Sukni GS, et al: Endoscopy and routine and double-contrast barium meal in diagnosis of gastric and duodenal disorders. *Lancet* 1(7965):901-902, 24 Apr 76.
- ³⁸ Kiil J, Andersen D: X-ray examination and/or endoscopy in the diagnosis of gastroduodenal ulcer and cancer. *Scand J Gastroenterol* 15(1):39-43, 80.
- ³⁹ Morris E: A comparison between upper gastro-intestinal endoscopy and barium meal examination in private practice. *Med J* 57(21):870-872, 24 May 80.
- ⁴⁰ Welsh JD: Diet therapy of peptic ulcer disease. *Gastroenterology* 72 (pt 1):740-745, Apr 77.
- ⁴¹ Yudkin J: Eating and ulcers. *Br Med J* 280(6212):483-484, 16 Feb 80.
- ⁴² Peterson WL, Sturdeuant AL, Frankl HD: Healing of duodenal ulcer with an antacid regimen. *N Engl J Med* 297(7):341-345, 18 Aug 77.

- ⁴³ Drake D, Hollander D: Neutralizing capacity and cost effectiveness of antacids. *Ann Int Med* 94(2):215-217, Feb 81.
- ⁴⁴ Clain JE, Wright JP, Price RN, et al: In vitro neutralizing capacity of commercially available antacid mixtures, and their role in the treatment of peptic ulcer. *S Afr Med J* 57(5):158-160, 2 Feb 80.
- ⁴⁵ McCarthy DM: Peptic ulcer: antacids or cimetidine? *Hosp Pract* 14(12):52-64, Dec 79.
- ⁴⁶ Marks IN: Current therapy in peptic ulcer. *Drugs* 20(4):283-299, Oct 80.
- ⁴⁷ Feldman M, Richardson CT, Peterson WL, et al: Effect of low-dose propantheline on food-stimulated gastric acid secretion; comparison with an "Optimal Effective Dose" and interaction with cimetidine. *N Engl J Med* (26):1427-1430, 29 Dec 77.
- ⁴⁸ Finkelstein W, Isselbach KJ: Drug therapy: Cimetidine. *N Engl J Med* 299(18):992-996, Nov 78.
- ⁴⁹ McGuigan JE: A consideration of the adverse effects of cimetidine. *Gastroenterology* 80(1):181, Jan 81.
- ⁵⁰ Rakatansky H: Peptic ulcer: cimetidine and other new concepts. *RI Med J* 62(10):409-410, Oct 79.
- ⁵¹ Danilewitz M, Tim LO, Hirschowitz B: Ranitidine suppression of gastric hypersecretion resistant to cimetidine. *N Engl J Med* 306(1):20-22, 7 Jan 82.
- ⁵² Walt RP, Frotman IF, Frost R, et al: Comparison of twice-daily ranitidine with standard cimetidine treatment of duodenal ulcer. *Gut* 22(4):319-322, Apr 81.
- ⁵³ Gutz HJ, Berndt H, Jackson D: The treatment of gastric ulcer: a comparative trial of four preparations. *Practitioner* 222(1332):849-853, Jun 79.
- ⁵⁴ Ippoliti A, Peterson W: The pharmacology of peptic ulcer disease. *Clin Gastroenterol* 8(1):53-67, Jan 79.
- ⁵⁵ Martin F, Farley A, Gagnon M: Comparative healing capacity of sucralfate and cimetidine in short-term treatment of duodenal ulcer: a double-blind, randomized controlled trial. *Gastroenterol*, to be published.
- ⁵⁶ Hollander D: A multicenter, double-blind trial of sucralfate in duodenal ulcer therapy. *J Clin Gastro*, to be published.
- ⁵⁷ Morris T, Rhodes J: Antacids and peptic ulcer — a reappraisal. *Gut* 20(6):538-545, Jun 79.
- ⁵⁸ Bodemar G, Walan A: Two-year follow-up after one year's treatment with cimetidine or placebo. *Lancet* 1(8158):38-39, 5 Jan 80.
- ⁵⁹ Korman MG, Hetzel DJ, Hansky J, et al: Relapse rate of duodenal ulcer after cessation of long-term cimetidine treatment: a double-blind controlled study. *Dig Dis Sci* 25(2):88-91, Feb 80.

3705 NE 77th Street, Apt. 4
Seattle, WA 98115

Folk Remedies of Rhode Island's Portuguese-American Immigrants

Folk Medicine Is Alive and Well in Our Ethnic Enclaves

Lois A. Monteiro, PhD

The Portuguese are a major immigrant group in the Rhode Island-Southeastern Massachusetts area. Although they are generally well integrated into the medical care system of this area, using physicians, hospitals, clinics, and health care centers for their regular source of medical care, there is evidence that this ethnic group also continues to use herbal folk remedies quite freely.^{1, 2} These remedies are those learned and brought with them from the rural areas of the Azores Islands and the interior of Portugal, where most of the immigrants originate and where professional medical care is scarce and often inaccessible. The information presented here on specific herbs and their uses was obtained from twenty immigrants in the Rhode Island area who were associated in some way with the Portuguese and Brazilian Studies Center at Brown University.

Methodology

The respondents were persons of Portuguese background who were attending a conference for bilingual education teachers at the Center for Portuguese and Brazilian Studies at Brown Uni-

versity in Providence, Rhode Island. The respondents were given a list of thirty-eight herbs previously collected by Robert Like in the Cambridge area and were asked to check those herbs that they believed to have medicinal value, and to name the condition for which the remedy was useful. They were also asked to add any other medicinal herbs known to them. Thirty additional herbs were mentioned bringing the list to a total of 68 herbal remedies reported by the twenty persons who responded to the questionnaire.

The lists have been arranged in two formats. Table 1 names the condition or conditions and the remedy or remedies that the respondents suggested as helpful for that condition. Table 2 names the herb and the condition or conditions mentioned as being helped by that remedy. The names of herbs have been translated into English by obtaining the Latin botanical names for the Portuguese herbs and then finding the English equivalent for the Latin names.^{3, 4}

Discussion

In all 68 herbal remedies were mentioned by these medically sophisticated, well-educated people who one might not ordinarily think of as users of non-traditional medicine. Yet their knowledge of and familiarity with these herbs suggests the pervasiveness of this kind of treatment among this ethnic group in general. According to the respondents, people who use the herbs for medicinal purposes may grow them in the garden at home in the United States, or may receive them from Portugal, either through the mail or by hav-

Lois A. Monteiro, PhD, Associate Professor of Medical Science, Brown University, Providence, Rhode Island.

Table 2. Remedies by Specific Conditions and Symptoms

<i>Headache</i> Rosemary Garlic Black tea Maria Luisa herb Marjoram Mallow Anise Raw Potato Savory Wild Thyme	<i>Cough</i> Watercress Garlic Citron Pellitory Maidenhair Orange Blossom Eucalyptus Fennel Mallow Pennyroyal Sage Lemon Wormwood Pine flowers Elder tree Violet	<i>Bronchitis</i> Watercress Rosemary Eucalyptus Pennyroyal	<i>Menstrual Cramps</i> Rue Cinnamon Wormwood Lavender	<i>Digestion</i> Black tea
<i>Stomach Ache</i> Rosemary Blackberry Rue Olive oil Corn Silk Cinnamon Black tea Citron Herb Robert Anise Wormwood Camomile Mallow Pennyroyal Sage Linden Orange Blossom Fennel Maria Luisa	<i>Rheumatism</i> Rosemary Rue Eucalyptus Walnut	<i>Blood Pressure</i> Garlic Herb Robert Maria Luisa herb Olive tree	<i>Regulate Menstruation</i> Marigolds	<i>Stimulant</i> Chicory
<i>Colds</i> Rosemary Blackberry St. John's Wort Eucalyptus Blackberry bush Orange Blossom Lemon Pine flowers Elder tree Sage	<i>Blood, Clean the Blood</i> Rosemary Sarsaparilla	<i>Intestine</i> (also intestinal cramps) Blackberry Cinnamon Black tea Fennel Grape sprouts Mallow Calamint Pennyroyal Camomile Flaxseed	<i>Tension (Calmative)</i> Chicory Citron Spearment Strawberry	<i>Hoarseness</i> Herb Robert
<i>Nerves</i> Rosemary Rue Maidenhair Orange Blossom Camomile Verbena Citron Maria Luisa herb Fennel Lemon Pennyroyal Linden	<i>Sore Throat</i> Garlic Blackberry Lemon Flaxseed Cherry Stems Sage	<i>Heart Trouble</i> Citron Orange Blossom Olive tree Pennyroyal Sage Linden	<i>Wounds</i> (To wash or clean) Flaxseed Mallow Walnut Elder tree Camomile Daisy Roses Sarsaparilla	<i>Chicken Pox</i> Walnut
	<i>Diarrhea</i> Blackberry Maidenhair Black tea Rice Water Guava Guava Leaves	<i>Colic (gas)</i> Garlic Cinnamon Black tea Camomile Anise Fennel Wormwood Olive oil	<i>Sarsaparilla</i>	<i>Measles</i> Elder tree
	<i>Eye Infection (also sty)</i> Rue Garlic Roses Elder tree Black tea	<i>Teeth (also Toothache)</i> Eucalyptus Incense Poppy Mallow	<i>Burns</i> Sage Raw Potato	<i>Gallbladder</i> Camomile
	<i>Fever</i> Rosemary Rue Anise Eucalyptus Orange Blossom Raw Potato Pellitory Black tea Lemon Strawberry Elder tree Sage	<i>Inflammation</i> Flaxseed Strawberry Mallow	<i>Skin</i> Mallow Sarsaparilla Wheat	<i>Clean Whole System</i> Mallow
		<i>Throat Infection</i> Wormwood Mallow	<i>Flu</i> Maria Luisa herb Orange Blossom	<i>Weakness, Any Illness</i> Sage
		<i>Bladder, Kidneys, Urine</i> Corn Silk Fennel Flaxseed Dill Horsehair Cinnamon Strawberry Cherry Stems Black tea	<i>Increase Appetite</i> Wormwood Icelandic Moss	<i>Earache</i> Olive Oil
			<i>Constipation</i> Senna Kale stems	<i>Bed Wetting</i> Seven Minute Itch
			<i>Disinfectant</i> Eucalyptus Mallow	<i>Boils</i> Flaxseed
			<i>Worms</i> Garlic Mexican tea "Nó de Cabra"	<i>Whooping Cough</i> Honey (mixed with chopped onion)
			<i>Hemorrhoids</i> Pellitory	<i>Emetic</i> "Poaia"
			<i>Childbirth Pain</i> Rue	<i>Tuberculosis</i> Watercress
			<i>Heart burn</i> Rue	<i>Painkiller</i> Herb Robert Savory
			<i>Internal Infection</i> Corn Silk	<i>Varicose Veins</i> Daisy
			<i>Hemorrhage</i> Cinnamon	<i>Sleep</i> Anise
				<i>Asthma</i> Eucalyptus Camomile
				<i>Grippe</i> Lemon
				<i>Chest Congestion</i> Flaxseed Watercress
				<i>Furuncles</i> Belladonna lily Mustard seed
				<i>Bruises</i> Mountain Tobacco

Table 1. Herbs and Their Uses

<i>Agrião</i> — <i>Watercress</i> Cough Lungs Bronchitis Tuberculosis	<i>Barbas de Milho</i> — <i>Corn Silk</i> Bladder (clean bladder; inflammation of bladder) Kidneys Tea for internal infection To urinate Stomach illness Diuretic	<i>Erva Doce</i> — <i>Anise</i> Fever Sleep Headaches (tea for headache) Gas Tea for stomach aches when pregnant Perfume Colic (babies)
<i>Agua de Arroz</i> — <i>Rice Water</i> Diarrhea	<i>Batata Crua</i> — <i>Raw Potato</i> Fever — Cut into pieces, put on head to cure fever and headache Headache Burns Sore throat	<i>Erva Maria Luisa</i> (No English Name) Flu Stomach ache High blood pressure Nerves Headache
<i>Alecrim</i> — <i>Rosemary</i> Headaches Nerves Stomach aches Coughs Rheumatism Colds Fever Bronchitis Clean the Blood	<i>Beladona</i> — <i>Belladonna Lilly</i> Swelling Furuncles	<i>Eucalipto</i> — <i>Eucalyptus</i> Cough (syrup for cough) Asthma Colds Body aches Rheumatism Boil to purify air in room Disinfectant Bronchitis Teeth Fever (place branches in room, close doors and windows, breathe aroma) Kidney (tea)
<i>Alfavaca de Cobra</i> — <i>Pellitory</i> Fever Hemorrhoids Cough	<i>Canela</i> — <i>Cinnamon</i> Hemorrhage Stomach ache Intestinal cramps Gas Tea for stomach and kidney pains Intestines Menstrual pain	<i>Faia</i> — <i>Beech Tree</i> Diarrhea
<i>Alfazema</i> — <i>Lavender</i> Menstrual cramps	<i>Chá Preto</i> — <i>Black Tea</i> Diarrhea Colic Headache Digestion Stomach ache As wash for inflamed eyes Intestines Fever Diuretic	<i>Favas</i> — <i>Broadbeans</i> Burns
<i>Alhos</i> — <i>Garlic</i> Headache Cough (mix with milk for cough) Tea for sore throat High blood pressure Chew & breathe on infected eye Worms Gas	<i>Chicoria</i> — <i>Chicory</i> Tension Stimulant Constipation	<i>Flor de Laranjeira</i> — <i>Orange Blossom</i> Nerves (calmative) Flu Tea, tea to bring down fever Cough Heart trouble Stomach Tea for colds and laryngitis
<i>Amora</i> — <i>Blackberry</i> Colds Stomach aches Diarrhea Sore throat Intestines (mix with liquor for intestinal cramps)	<i>Cidreira</i> — <i>Citron</i> Cough Nerves Heart trouble Tea for stomach ache and digestion Tea for pains Calmative	<i>Folhas de Araceleiro (Goiaba)</i> — <i>Leaves of guava tree</i> Diarrhea
<i>Arnica</i> — <i>Mountain Tobacco</i> Bruises	<i>Cuidados Eternos</i> — <i>Marigold</i> Regulate menstruation	<i>Formigueira</i> — <i>Mexican Tea</i> Worms
<i>Arruda</i> — <i>Rue</i> — <i>Herb of Grace</i> Menstrual cramps Childbirth cramps Heal sty Body aches Stomach, upset stomach Tea for fever Tea for stomach pains Nerves Heatburn Warts (rub)	<i>Endro</i> — <i>Dill</i> Kidneys	<i>Funcho</i> — <i>Fennel</i> Cough Gas, gas pains Soup for stomach ache Urination Intestinal cramps Nerves
<i>Avenca</i> — <i>Maidenhair, Silver Fern</i> Cough Tea for nerves Diarrhea	<i>Erva de São Roberto</i> — <i>Herb Robert</i> (<i>Geranium family</i>) Cancer (painkiller) High blood pressure Hoarseness Stomach ulcers	<i>Grelas Vinha</i> — <i>Grape Sprouts</i> Intestinal cramps
<i>Azeite</i> — <i>Olive Oil</i> Stomach pains (rub) Earache	<i>Erva São João</i> — <i>St. John's Plant, Mugwort</i> Colds	<i>Hissopo</i> — <i>Wild Thyme</i> Headaches
		<i>Hortelã</i> — <i>Spearmint</i> Nerves Calmative

Table 1. (continued)

<i>Incenso</i> — <i>Incense, Aromatic</i>	<i>Manjerona</i> — <i>Marjoram</i>	<i>Rosas</i> — <i>Roses</i>
Tea	Headaches	Wash out eyes, eye infections
Toothache	<i>Mel</i> — <i>Honey</i>	Wash wounds
Pain	Colds	Disinfects eye inflammation
Bleach for white clothes	Sore throat	<i>Sabugueiro</i> — <i>Elder Tree</i>
<i>Losna</i> — <i>Wormwood</i>	Body Sores (rub)	Fever (tea to reduce fever)
Colics	Whooping Cough (mix honey with chopped onion)	Wash cuts
Menstrual cramps	<i>Morango</i> — <i>Strawberry</i>	Wash eyes
Stomach (upset stomach)	Fever	Colds
Increase appetite	Inflammation	Cough (tea for cough)
Soup	Tension	Measles
Cough	Urine	<i>Salsaparrilha</i> — <i>Sarsaparilla</i>
Boil and use for gargle	<i>Mostarda</i> — <i>Mustard Seed</i>	Blood (weak blood; purify blood; tea for cleaning blood)
<i>Limão</i> — <i>Lemon</i>	Pains	Skin
Cough	Carbuncles	Wounds
Sore throat	<i>Musgo de Franca (islandico)</i> — <i>Icelandic moss</i>	<i>Salva</i> — <i>Sage, Salvia</i>
Colds	Anorexia (to cure)	Heart Conditions
Grippe	<i>Neveda</i> — <i>Calamint</i>	Fever
Nerves	Tea for intestinal cramps	Cough (tea for cough)
Fever	<i>Nó de Cabra</i>	Colds
<i>Linhaca</i> — <i>Flaxseed</i>	Worms	Weakness
Bladder	<i>Nogueira</i> — <i>Walnut</i>	Wash burns
Wounds	Chicken pox	All illnesses
Inflammations	Wash wounds	Stomach
Hot packs	Clean infection (external)	Throat
Sore throat	Bodyaches	<i>Segurelha</i> — <i>Savory</i>
As a Tea — put seeds in boiling water, let settle and drink for intestinal inflammation.	<i>Olhos de Pinheiro</i> — <i>Pine Flowers</i>	Painkiller
Congestion (make a dough and put on chest)	Cough	Headaches
Boils	Colds	<i>Sene</i> — <i>Senna (any of various species of Cassia)</i>
Edema	<i>Oliveira</i> — <i>Olive Tree</i>	Constipation
<i>Macelo</i> — <i>Camomile</i>	Tea for heart	<i>Silva (Silvado)</i> — <i>Blackberry Bush</i>
Stomach ache	High blood pressure	Diarrhea
Gallbladder	<i>Ortigas</i> — <i>Seven Minute Itch</i>	Coughs
Tea	Bed wetting (rub on buttocks)	Colds
Skin	<i>Papoila</i> — <i>Poppy</i>	<i>Sumo de Couve</i> — <i>Kale Juice</i>
Wounds	Toothache	Diabetes
Nerves	Abcessed teeth	<i>Talo de Couve</i> — <i>Kale Stem</i>
Colic for babies	<i>Pes de Cereja</i> — <i>Cherry Stems</i>	Constipation
Dry the flower, use as tea for stomach and intestines	Sore throats	<i>Telia</i> — <i>Linden</i>
Asthma	Tea	Nerves (calms nerves)
<i>Malva</i> — <i>Rose-Mallow (Plant of the family Malvaceae)</i>	Tea for bladder	Heart
Migraine headache	<i>Pessegueiro Inglês</i> — <i>Verbena</i>	Stomach
Wash cuts (wounds)	Nerves	<i>Trigo</i> — <i>Wheat</i>
Tea	<i>Poaia</i> —	Eczema
Disinfectant	Emetic	<i>Urtiga</i> — <i>Nettle</i>
Cough	<i>Poejo</i> — <i>Pennyroyal, Pudding Grass</i>	Hair
Inflammation	Cough	<i>Usaidela</i> — <i>Mexican Tea</i>
Intestines	Bronchitis	Worms
Stomach ache	Nerves	<i>Violeta</i> — <i>Violet</i>
Skin	Stomach problems	Cough
Tea to clean whole system	Intestinal cramps	
Toothache	Heart	
Mouth and throat infection (gargle)	<i>Rabo de Asno</i> — <i>Horsetail</i>	
Erysipeleas	Urine	
Swellings		

ing them brought back from Portugal and the Azores by relatives or friends who buy them in pharmacies during visits to the homeland.

There was a high level of agreement among the respondents on the efficacy of certain herbs, seven of which were reported as useful by eighty per cent of the persons questioned (these common herbs were orange blossom, mallow, lemon, corn silk, citron, and eucalyptus), while another fifteen herbs were agreed on as useful by half the respondents. Although they commonly recognized the herbs as useful, the respondents had differing opinions on what each herb was to be used for and reported uses varied widely from quite benign ailments such as diarrhea or colds to more serious conditions such as high blood pressure and heart disease.

The most widely recognized herb was malva, a Portuguese species of the mallow plant, that was mentioned as a remedy for fourteen conditions, including migraine headaches, stomach aches, toothaches, swelling, wounds, and as a tea "to clean the whole system." Eucalyptus, the second most recognized herb, was recommended for eleven different conditions, among them kidney trouble, coughs, body aches, teeth, and fevers. Of thirty-eight most common herbs only one had a single use, rice water, suggested only for diarrhea. The others had at least two different uses mentioned, and most were thought to be helpful in four or five possible conditions, eg, fennel for coughs, gas pains, urine problems, and nerves; wormwood for colic, gargles, coughs, menstrual cramps and as a stimulant for the appetite.

When one looks at the conditions for which the remedies were suggested, the multiple and substitute use of herbal remedies by this ethnic group becomes even clearer. For example, headache was mentioned as a condition that would be helped by ten herbs (rosemary, garlic, black tea, anise, maria luisa herb, mallow, raw potato, savory, marjoram, and wild thyme), whereas stomach ache was mentioned as being helped by nineteen herbs and coughs as amenable to sixteen. Besides the multiple cures for these common ailments, there were also multiple remedies mentioned for the more serious conditions. For example, heart trouble, according to these respondents, may be helped by citron, orange blossom, olive leaves, pennyroyal, sage, and linden and kidney trouble by nine remedies, among them corn silk, cinnamon, fennel, flaxseed, horsetail,

strawberry, cherry stems, dill, and black tea.

It is also of interest that the method of administration of the remedy may vary for the same condition or the same herb. If one chooses raw potatoes for headache, they are applied externally to the forehead, but if one chooses garlic or rosemary for the same complaint, the herb is brewed into a tea and taken internally. Eucalyptus is an example of a wide-ranging herb that the immigrants use in different ways for different conditions. The respondents mentioned that this herb, which is readily available throughout Portugal, can be mixed with alcohol and rubbed on the body for aches or rheumatism, made into a syrup for coughs or into a tea for colds or bronchitis, used externally as a disinfectant, and finally for fever cut in "large branches (that) should be placed in the room and the doors and windows shut so that the sick person can breathe in the aroma."

The extensiveness and popularity of use of folk remedies by the Portuguese immigrant population is suggested by the success of this small collection effort. We do have evidence of the continued use of folk remedies in the United States by natives and by other immigrant groups. Frank Brown's collection of popular remedies collected in North Carolina from native non-Portuguese Americans lists some of the same herbs for the same conditions as those collected in this study, eg, flaxseed or sarsaparilla root tea for the blood, strawberry tea for intestinal trouble, and rosemary for colds.⁵ Immigrant Puerto Ricans in New York are known to frequent *botanicas*, "folk pharmacies," where they can purchase spiritualist religious supplies as well as various herbs or plants to be used for magical purposes or for remedies,⁶ and Margaret Clark's work on Mexican-Americans has reported on the use of various folk remedies by that group.⁷

References

- ¹ Monteiro L: Immigrants without care. *Society*: 38-42, Sep-Oct 77.
- ² Like R: Portuguese popular health culture: a discussion of three case histories, unpublished paper, Harvard University, 1977.
- ³ Grieve M: *A Modern Herbal*. New York, Hafner, 1959.
- ⁴ Feijao RD: *Elucidario Fitologico*. Lisbon, Instituto Botanico de Lisboa, 1960.
- ⁵ Hand W: Frank C. Brown Collection of North Carolina Folklore. Durham, North Carolina, Duke University, 1961, vol 6.
- ⁶ Borrello MA, Mathias E: *Botanicas: Puerto Rican folk pharmacies*. *Natural History*: 65-73, Aug-Sep 77.
- ⁷ Clark M: *Health in the Mexican-American culture*. Berkeley, University of California, 1959.

Resuscitation in Rhode Island

Improvement in Resuscitation of Severely Ill and Injured Patients Will Require a Team Effort

Glenn W. Mitchell, MD

Historical Perspective

Prior to 1970, prehospital resuscitation in Rhode Island was limited for the most part to efforts at closed or open cardiac massage, or both, by physicians who happened on the scene of a cardiac arrest. More recently, closed chest cardiopulmonary resuscitation (CPR) for cardiac arrest by trained paraprofessionals and lay persons has been implemented. These efforts have been lifesaving in occasional instances, but the most common outcome is death. Resuscitation in trauma was stabilization of injuries only and was limited to pressure control of hemorrhage and simple splinting by persons who had taken Red Cross first aid courses or their equivalent. Definitive resuscitation did not begin until arrival of the victim in an Emergency Department. Only neonatal emergency care was advancing during this period due to an interhospital program based at the Women and Infants Hospital, which gradually included transport vehicles, specialized equipment, and trained personnel operating under treatment and transfer protocols.

Presented in part at the Rhode Island Chapter of American College of Surgeons meeting, Providence, Rhode Island, January 27, 1982.

Glenn W. Mitchell, MD, Medical Director, Emergency Medical Services, Rhode Island Department of Health; Clinical Instructor, Brown University, Providence, Rhode Island.

The federal Emergency Medical Services Act of 1973 and its subsequent revisions stimulated the growth of prehospital resuscitation and emergency care. Formal organization of emergency medical services started in 1971 in Rhode Island, and the training of Emergency Medical Technicians (EMTs) with the Department of Transportation course began in 1974 with a goal of more definitive resuscitation and stabilization in the field. Cardiac patients in the metropolitan areas were then able to receive electric counter-shock as well as several intravenous medications including sodium bicarbonate, epinephrine, atropine, and lidocaine. It has been possible for trauma patients in the same geographic areas to be stabilized by early volume replacement with crystalloids, but peripheral intravenous lines have been the only route permitted. The introduction in 1981 of pneumatic shock trousers in the rural and suburban areas of the state has provided additional stabilization for patients with hypovolemic shock, fractures of the pelvis, and retroperitoneal bleeding (including that from rupturing abdominal aortic aneurysms).

The federal grants awarded to the Rhode Island Department of Health by the Department of Health, Education and Welfare (now the Department of Health and Human Services) funded much of the local development of Emergency Medical Services (EMS). Over 1.3 million dollars was received during the lifetime of the grant program which stimulated growth in the overall organization of emergency services throughout the state. These funds were spent to support

training programs and licensure activities, and to provide seed grants to individual rescue companies to meet the ambulance equipment specifications of the American College of Surgeons¹ and to install necessary two-way communications equipment. Additional funds were supplied by the Department of Transportation through the Governor's Office on Highway Safety to purchase ambulances designed to meet new federal standards.²

Current System Performance

Trauma resuscitation may soon advance further due to the utilization of the Trauma Center. Rhode Island Hospital was designated as the Trauma Center for the state in February 1980, but utilization of the center as a direct triage facility has not yet been implemented. During 1981, a Trauma Triage Committee was formed in the Division of Emergency Medical Services to pilot the implementation of the trauma score of Champion et al.³ The pilot project has established the feasibility of the trauma score in the state. A trauma patient is rated according to readily observable signs (Table 1) and could be triaged directly to the Trauma Center, if appropriate. The scoring system is designed to be used by rescue squads throughout the state with a distribution and in-service training program which, at present, remains to be funded.

This "triage on the street" by EMTs is to be initially implemented within a fifteen minute travel radius of the Trauma Center. Due to transport system inadequacies, the entire state cannot be serviced by ambulance ground transport vehicles alone. Helicopter service is under consideration and could be available as early as 1983 to make direct Trauma Center transportation from an accident site anywhere in the state a reality. Assuming eventual availability of necessary funding, it is hoped that, as experience with street triage, rapid transport, and trauma team cooperation is gained, there will be a demonstrable fall in trauma mortality and morbidity as was the case in Maryland during the past decade.

Cardiac resuscitation has slowly increased in effectiveness, but available data from 1979 indicate that less than 8 per cent of patients with cardiac arrest treated by our most advanced metropolitan area Rescue Units are discharged alive from the hospital.⁴ This is far short of the results currently available following methodologies used in Seattle⁵ and other centers.⁶ The Division of Emergency Medical Services is currently working to update the education of all Emergency Medical

Technicians as one part of a system-wide approach to the improvement of cardiac survival. Also, the state is working to create a Paramedic Program to function throughout the state. There are no Paramedics in Rhode Island at the present time; our Advanced EMTs are equivalent to the nationally recognized classification of Cardiac Technicians with 120 hours of advanced training. This is far short of the minimum 480 hours of advanced training to become a nationally recognized Paramedic.

It is to the credit of local station WJAR Channel 10 TV, the American Red Cross, the American Heart Association, and Blue Cross and Blue

Table 1. Trauma Score Sheet

CATEGORY	OBSERVATION	POINTS (✓)
Respiratory Rate	36/min. or more	2-_____
	25-35/min.	3-_____
	10-24/min.	4-_____
	1- 9/min.	1-_____
	0	0-_____
Respiratory Expansion	Normal	1-_____
	Shallow	0-_____
	Retractive	0-_____
Systolic Blood Pressure	90 or more	4-_____
	70-89	3-_____
	50-69	2-_____
	49 or less	1-_____
	0	0-_____
Capillary Return	Normal	2-_____
	Delayed	1-_____
	None	0-_____
Eye Opening	Spontaneous	4-_____
	To Voice	3-_____
	To Pain	2-_____
	None	1-_____
Verbal Response	Oriented	5-_____
	Confused	4-_____
	Inappropriate Sounds	3-_____
	None	1-_____
Motor Response	Obeys Command	6-_____
	Localizes Pain	5-_____
	Withdraw (pain)	4-_____
	Flexion (pain)	3-_____
	Extension (pain)	2-_____
	None	1-_____

Shield of Rhode Island that a program to educate large numbers of lay rescuers in CPR using a one week television series was such a success during September 1981. Rhode Island trained more individuals than any other state in this nationwide effort (nearly 6,000 persons). These efforts must be continued if Rhode Island is to approach the density of trained rescuers that such cities as Seattle now enjoy. If about 80,000 additional lay persons can be trained, current performance data suggest a major impact: one person who now dies from cardiac arrest could be discharged home from a hospital in Rhode Island *every day*. Support of lay CPR training will be a continuing program for the Division of Emergency Medical Services.

Future Prospects

Legislative changes are planned for possible enactment during the 1982 General Assembly session with a totally new EMS Act for the state. This Act would bring the state's emergency medical services system under the supervision of a Medical Director and a state Emergency Medical Services (EMS) Board composed of interested and involved members of the EMS system at all levels including physician groups, nurses, rescue providers, and agencies involved with EMS. This proposed legislation would allow for quality assurance, standardization of education, continuing education, and overall medical control of the Emergency Medical Services system which has not been previously possible. It also would enable regional cooperation for advanced life support and permit the establishment of the classification of Paramedic. A spinoff of this legislation should be the availability of standing orders (to supplement direct radio communications in certain cases) due to better medical control and quality assurance. At present, communications failures between hospitals and field personnel result in *no* advanced prehospital care being delivered.

The proposed Paramedic Program will be an innovative one. Second-tier Paramedic response will be available in the non-metropolitan areas by "flying squads" composed of members of several contiguous basic rescue departments who have trained as Paramedics. The assignment of personnel and the housing of supplementary equipment can rotate throughout a rural region. The flying squad will have its own medical kit and telemetry equipment to plug into a basic life sup-

port vehicle on arrival at a resuscitation begun by the local rescue squad which responded initially. Advanced patient assessment skills, the availability of nearly 20 medications, and the ability to insert central venous catheters for massive volume replacement should enhance the resuscitation ability of these highly trained personnel in situations involving long or difficult transportation to appropriate hospitals. Due to the length of the training program, however, their impact would not be felt until 1983 at the earliest.

Medical control is coming of age in this state since the position of Medical Director of the Emergency Medical Services system was filled in January 1981. The establishment of programs of data analysis, quality assurance, and medical control are vital to monitor and enhance the capability and performance of the Emergency Medical Services system. A continuing education program for EMTs was established in July 1981 with a two-year cycle covering all the educational objectives of the EMT program in a looseleaf, rapidly revisable, and readily updated format. This provides a mechanism of continuing study for practicing EMTs as medical techniques improve in prehospital care and replaces previously established review sessions. Physicians, nurses, and other paramedical personnel will, it is hoped, become more involved in the EMS effort in the state both as educators and students as education programs reach all members of the prehospital care team. Only with a team effort can the resuscitation of patients with severe illness and injury be improved.

References

- ¹ Bulletin of American College of Surgeons 55(5), May 70.
- ² Federal Specification KKK-A-1822, General Services Agency, January 1974.
- ³ Champion HR, Sacco WJ, Camazzo A, et al: Trauma score. Crit Care Med 9(9):672-676, Sep 81.
- ⁴ A Status Report on the Impact of Cardiac Area of the Rhode Island Emergency Medical Services System on Deaths from Cardiac Arrest as reported in 1979 based on 1978 and Standard Baseline Date. Rhode Island Department of Health, 1979 (unpublished).
- ⁵ Cobb LA, Conn RD, Samson WE: Prehospital coronary care: the role of a rapid response mobile intensive/coronary care system. Circulation 44 (suppl II):45, Oct 71.
- ⁶ Rockswold G, Sharma B, Ruiz E, et al: Followup of 514 consecutive patients with cardiopulmonary arrest outside the hospital. JACEP 8(6):216-220, Jun 79.

Rhode Island Department of Health
75 Davis Street
Providence, RI 02908



evening clinic for alcohol affected families

A state licensed private medical out-patient facility for the alcohol sick person and his suffering family.

Four week individualized therapy in strictly observed confidentiality.

Outpatient treatment fully covered by all health insurers as mandated in 1980 Act of R.I. General Assembly.

For further information contact:

FRANEK CLINIC, INC.
884-3530

HEALTH HAVENS NURSING HOME

East Providence

FOR SALE

WELL-ESTABLISHED — FREE STANDING

PRIVATE EMERGENCY ROOM

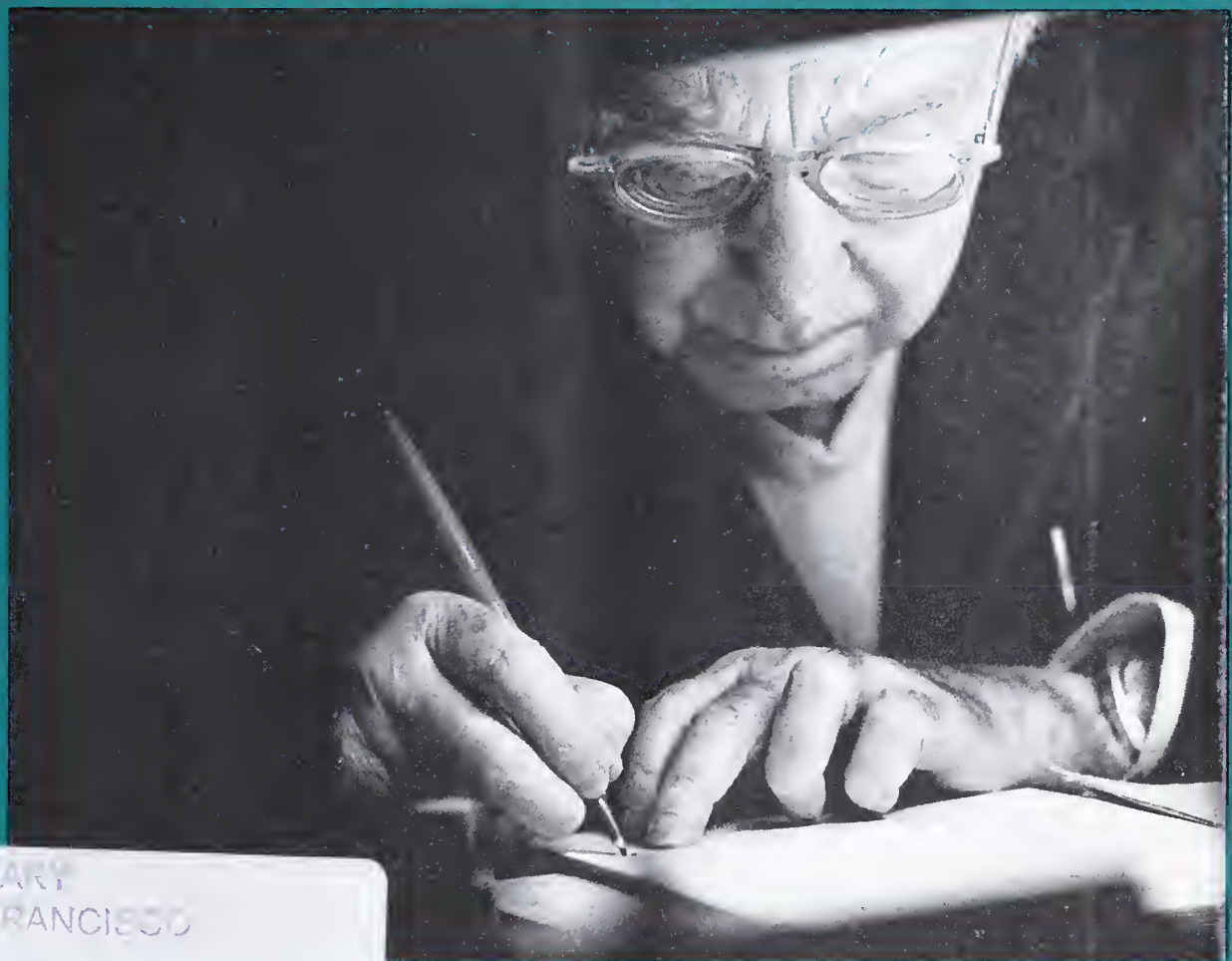
- IN MAJOR R.I. CITY
- ON WELL TRAVELED ROAD
- WITH HIGH PATIENT VOLUME

P.O. Box 7207, Warwick, RI 02886

Rhode Island Medical Journal

September 1982
Volume 65, Number 9

The Greying of
Rhode Island
See page 355



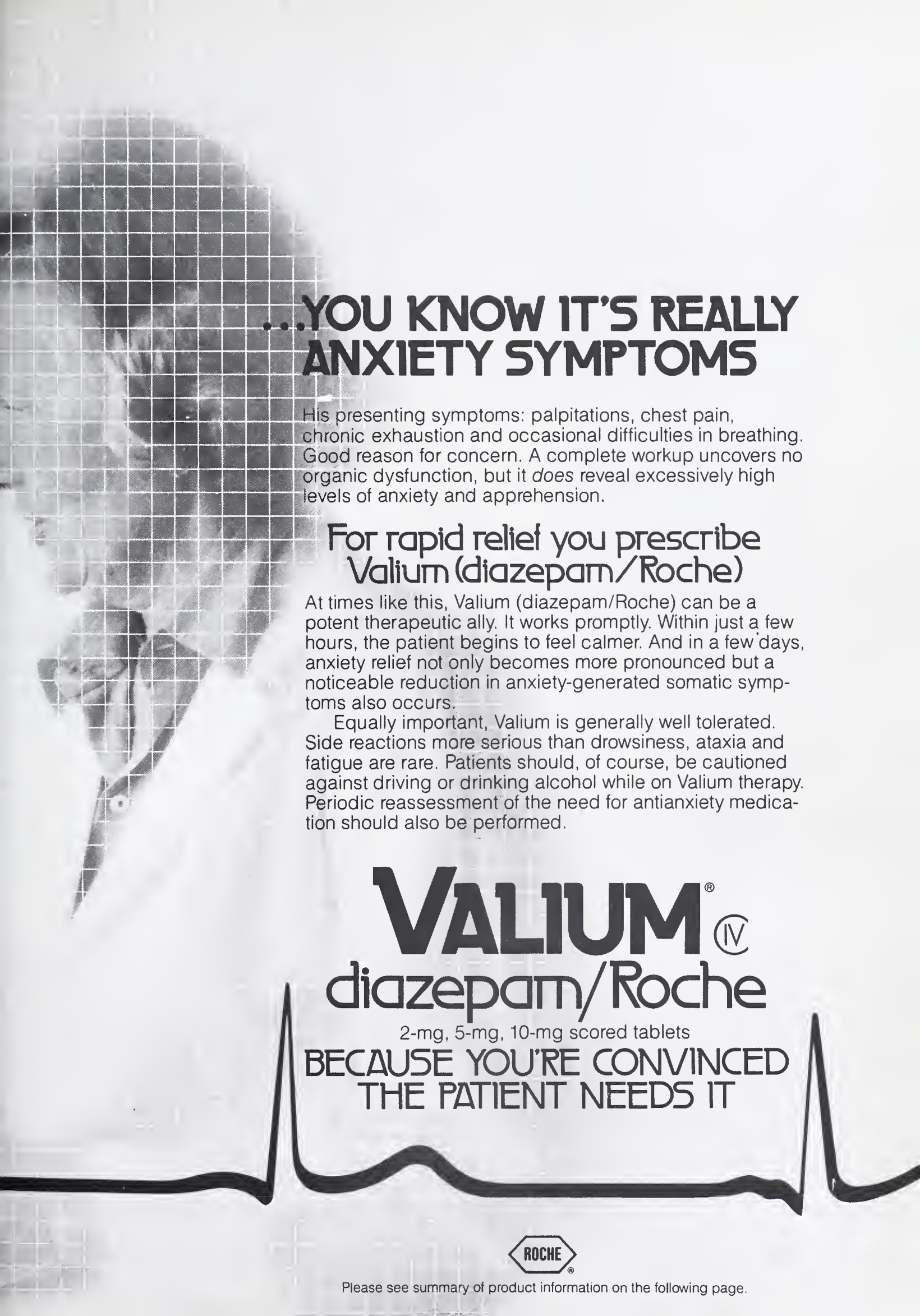
LIBRARY
UNIVERSITY OF CALIFORNIA
SEP 28 1982

CONTRIBUTIONS

- 59 The Domain of the Elderly
- 65 Aging, Longevity, Prevention and Cure: Our Professional Futures
- 71 Aging in the 80s: The Promise of the Partnership
- 47 SEMI-ANNUAL CME CALENDAR
- 53 PRESIDENT'S PAGE
- 55 EDITORIAL
- 56 EDITOR'S MAILBOX

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM[®] ^{IV}

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT



Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500;* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

***"To Some People We're
More Than A Service."***

Rhode Island Medical Journal

September 1982
Volume 65, Number 9

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Maurice M. Albala, MD

Paul Calabresi, MD

Herbert Fanger, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Melvin D. Hoffman, MD
President

Leonard S. Staudinger, MD
Vice President

Milton W. Hamolsky, MD
Secretary

Charles P. Shoemaker, Jr., MD
President-Elect

Kenneth E. Liffmann, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

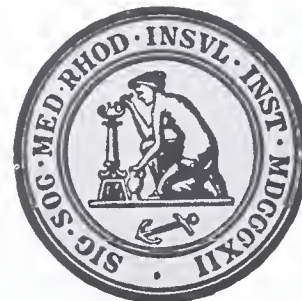
Elie J. Cohen, MD
Newport County Medical Society

Constantine G. Demopoulos, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society



easy to take



Keflex®
cephalexin

Additional information available
to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

TABLE OF CONTENTS

347 SEMI-ANNUAL CME CALENDAR**353 PRESIDENT'S PAGE**

A Hospital Corporation Challenges Medical Practice: The Dilemma of Change

355 EDITORIAL

The Greying of Rhode Island

356 EDITOR'S MAILBOX

Rhode Island's Pocket Medical Profiles for Senior Citizens
Smoking Among School Children Revisited

CONTRIBUTIONS**359 The Domain of the Elderly**

The Demographic Data Presented Suggest Numerous Questions Upon Which Research Can Be Focused

Stanley M. Aronson, MD Renee R. Shield, MA

365 Aging, Longevity, Prevention and Cure: Our Professional Futures

The 1981 Nathan J. Kiven, MD Oration at the Miriam Hospital

Alexander Leaf, MD

371 Aging in the 80s: The Promise of the Partnership

The Gerontology Center Will Integrate the Resources of the Brown Medical Program and Several Other Agencies

John W. McClain, PhD David S. Greer, MD Donald L. Spence, PhD

COVER

Cover photo courtesy of the Southeastern New England Long Term Care Gerontology Center, Providence, Rhode Island.

When your overweight patients seek your help with a weight reduction plan...

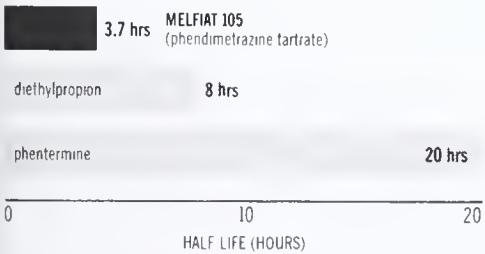


The benefits will outweigh the risks when you prescribe MELFIAT® 105

Because MELFIAT 105 effectively controls appetite. MELFIAT 105 (phendimetrazine tartrate), an effective anorexiant, provides the appetite control overweight patients often need to begin a successful program of weight reduction. And the positive results of initial short-term therapy with MELFIAT 105 can help motivate them to a lifelong commitment of weight control.

Because MELFIAT 105 has a 3.7 hour half-life and low abuse potential. Therapeutic efficacy combined with a short half-life and minimal abuse potential make MELFIAT 105 the drug of choice in the treatment of exogenous obesity. Because MELFIAT 105 has a short half-life, it minimizes drug accumulation and helps to eliminate such effects as disturbed sleep patterns. And, because MELFIAT 105 has significantly lower abuse potential than the amphetamines,¹ there's less risk to your patients. According to a NIDA (National Institute on Drug Abuse) report, phendimetrazine appears to be the least abused anorexiant when compared to phentermine and diethylpropion.¹

Half-life comparison of MELFIAT 105 and other anorexiant²



MELFIAT® 105

UNICELLES® C^{III}

(phendimetrazine tartrate)

Sustained-Release Capsules 105 mg

Because MELFIAT 105 is in a sustained-release capsule. MELFIAT 105 provides your patients with continuous drug delivery for appetite control that lasts throughout the day and helps to eliminate compulsive snacking and overeating at meals. In addition, the sustained-release capsule form maintains more constant blood levels of MELFIAT 105...without peaks and valleys.

Because MELFIAT 105 offers convenient, once-a-day dosage. MELFIAT 105 is available in a convenient capsule containing 105 mg. The simple morning dosage regimen is designed to encourage compliance, minimizing the chance of missed doses and assuring optimum therapeutic results.

Because MELFIAT 105 is from Reid-Provident Laboratories, Inc. Reid-Provident has the highest standards of quality to assure that only the finest products reach you. An advisory board of research scientists, physicians, pharmacists, and other technical staff continually review existing products and new product proposals to make sure that the latest pharmaceutical technology is used in their design and manufacture. That's because Reid-Provident is committed to you and your patients.

For more information please write to Reid-Provident Laboratories, Inc.
640 Tenth Street, N.W.
Atlanta, Georgia 30318

References: 1. Sheu YS, Ferguson JA, Cooper JR: *Evaluation of the Abuse Liability of Diethylpropion, Phendimetrazine, and Phentermine*, unclassified document ADAMHA, HHS. Office of Medical and Professional Affairs, NIDA, 1980. 2. Douglas JG, Munro JF: The role of drugs in the treatment of obesity, *Drugs* 21:362-373, 1981.

MELFIAT® 105 UNICELLES® C^{III}
(phendimetrazine tartrate) 105 mg Sustained Release Capsules
INDICATIONS AND USAGE: Melfiat® 105 (phendimetrazine tartrate) is indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below
CONTRAINDICATIONS: Advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight-reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high-dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

USAGE IN PREGNANCY: The safety of phendimetrazine tartrate in pregnancy and lactation has not been established. Therefore, phendimetrazine tartrate should not be taken by women who are or may become pregnant.

USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure.

Central Nervous System: Overstimulation, restlessness, dizziness, insomnia, euphoria, dysphoria, tremor, headache; rarely psychotic episodes at recommended doses.

Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, other gastrointestinal disturbances.

Allergic: Urticaria

Endocrine: Impotence, changes in libido.

OVERDOSAGE: Manifestations of acute overdosage with phendimetrazine tartrate include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states.

Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma. Management of acute phendimetrazine tartrate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Acidification of the urine increases phendimetrazine tartrate excretion. Intravenous phenolamine (Regitine) has been suggested for possible acute, severe hypertension, if this complicates phendimetrazine tartrate overdosage.

DOSAGE AND ADMINISTRATION: Since Melfiat® 105 (phendimetrazine tartrate) 105 mg is a sustained-release dosage form, limit to one sustained release capsule in the morning. Melfiat® 105 (phendimetrazine tartrate) is not recommended for use in children under 12 years of age.

HOW SUPPLIED: Each orange and clear sustained-release capsule contains 105 mg phendimetrazine tartrate in bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.

THE ARMY NEEDS PHYSICIANS PART-TIME



**THE
ARMY RESERVE
OFFERS:**



- Funded CME's
- Flexible hours and locations
(as not to interfere with your practice)
- Non - contributory retirement annuity
- Affiliation with the largest comprehensive
health care system in the world
- A chance to broaden your medical expertise

CALL COLLECT
(203) 525-2616

or return coupon to:

★ AMEDD Personnel Procurement

★ FOB, Suite 532

★ 450 Main Street

★ Hartford, CT 06103

★ Name: _____

★ Specialty: _____

★ Address: _____

★ Business Phone: _____

★ Home Phone: _____

★ Best Time to Call: _____

★ *****



**ARMY RESERVE.
CARE FOR YOUR COUNTRY.**

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn

Dalmane® [flurazepam HCl/Roche] Stands Apart

The Physician's Sleep Glossary

Some common sleep laboratory terms

poly•som•no•graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la•ten•cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af•ter sleep on•set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to•tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re•bound in•som•nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³

Efficacy objectively demonstrated in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.

In numerous sleep laboratory investigations patients fell asleep sooner, slept longer and woke up less during the night³⁻¹² with

Dalmane®
flurazepam HCl/Roche

Compared with temazepam and other hypnotics, onset of sleep is more rapid⁴ with

Dalmane®

Fewer middle-of-the-night awakenings⁴ with

Dalmane®

More total sleep time on nights 12 to 14 of therapy⁴ and continued efficacy for up to 28 nights⁵ with

Dalmane®

Rebound insomnia is avoided upon discontinuation^{3,4,7} of

Dalmane®

Low incidence of morning "hang-over"¹⁴ with

Dalmane®

The efficacy of Dalmane has been studied in over 200 clinical trials with more than 10,000 patients.³⁻¹⁵ During long-term therapy, which is rarely required, periodic blood, kidney and liver function tests should be performed. Contraindicated in patients who are pregnant or hypersensitive to flurazepam.

Please see summary of product information on following page.

References: 1. Williams RL, Karacan I: Introduction, chap. 1, in *Sleep Disorders: Diagnosis and Treatment*, edited by Williams RL, Karacan I, Frazier SH. New York, John Wiley & Sons, 1978, p. 2. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Kales A et al: *JAMA* 241:1692-1695, Apr 20, 1979. 4. Kales A et al: *J Clin Pharmacol* 17:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 6. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 7. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 15, 1978. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Dement WC et al: *Behav Med* 5(10):25-31, Oct 1978. 10. Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. 12. Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. 13. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 14. Kales A, Kales JD: *Pharmacol Physicians* 4(9):1-6, Sep 1970. 15. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.



ROCHE
PRODUCTS INC.
Manati, Puerto Rico
00701

Dalmane®
flurazepam HCl/Roche
15-mg/30-mg capsules

Dalmane® (V)
(flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

 Roche Products Inc.
Manati, Puerto Rico 00701

Good Meetings. Guaranteed.

If you're having a meeting in Providence, we'll *guarantee* you a good one.

You'll get the room you want. Set up the way you want it. Exactly on time.

Your meals will be served on time.

Your room will be spruced up while you're at lunch or dinner.

And your bill will be ready for review as soon as you're ready to leave.

What's more, if something isn't perfect, you won't have to pay for it. (If a coffee break's two minutes late, the coffee's on us. Or if a meeting room's not ready on time, it's free!)

If this sounds good, call us at (401) 421-0700.

The Biltmore Plaza, Kennedy Plaza, Providence, RI 02903.

**BILTMORE
PLAZA**
A DUNFEE HOTEL

Cathleen Naughton Associates

Private Duty Nursing — Home Care

- Registered Nurses
- Licensed Practical Nurses
- Nurse Aides
- Homemakers

When Home Care Is Needed

PLEASE CALL

(401) 461-5230

Available 7 days a week 24 hours a day.

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, passwords and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

Announcing a New, Interactive CME Program for Today's #1 Health Problem Cardiovascular Disease: Risk-Reduction Strategies

Multimedia Seminar: Up to 2 Credit Hours, Category 1 PRA/AMA

A distinguished panel of authorities confronts the major clinical risk factors in cardiovascular disease management. Filmed case studies help the primary care physician identify and evaluate the patient's "risk profile" and assess cardiovascular treatment.

Self-study Program: 4 Credit Hours, Category 1 PRA/AMA

Follow-up clinical monograph discusses in depth 1) clinical issues and 2) practical strategies. Completion of the monograph and accompanying quiz reinforces the seminar material.

Total Program with Materials— Free of Charge

The program includes: two film segments on 16mm or 3/4" videocassette (on loan), step-by-step Moderator's Guide, Participant Workbooks, Self-study Program and publicity kit—everything needed to present a one- or two-hour seminar with minimal preparation.

For further information

Mail the coupon or call toll-free
800-526-4299.
In New Jersey, call
(201) 636-6600.



Cardiovascular Disease: Risk-Reduction Strategies



M.E.D. Communications
655 Florida Grove Road, Hopelawn, NJ 08861
Please send me full details on faculty, agenda,
accreditation and booking for the CME seminar,
Cardiovascular Disease: Risk-Reduction Strategies

Name _____
(PLEASE PRINT)

Title _____

Institution _____

Street _____

City _____ State _____ Zip _____

Telephone _____
(AREA CODE)

Cardiovascular Disease: Risk-Reduction Strategies
was produced in collaboration with New York Medical College by
M.E.D. Communications under a grant from Bristol Laboratories,
Division of Bristol-Myers Company. ME0703 8/82

19th Annual Maurice N. Kay Pediatric Symposium
MODERN ADVANCES IN PEDIATRICS

Wednesday, November 3, 1982, 8:45 am to 5:00 pm

**KAY AUDITORIUM, ROGER WILLIAMS GENERAL HOSPITAL
PROVIDENCE, RHODE ISLAND**

Moderator: Leo Stern, MD, Professor and Chairman of Pediatrics, Section of Reproductive and Developmental Medicine, Brown University, Providence, Rhode Island

Guest

Speakers: David H. Baker, MD, Columbia College of Physicians and Surgeons, New York; on "Pediatric Emergency Room Radiology — Real and Presumed"

Fred Rosen, MD, Harvard Medical School; on "Immuno-Regulation"

Abraham H. Rudolph, MD, University of California, San Francisco; on "Management of Heart Failure in Infants and Children"

John F. Griffith, MD, University of Tennessee Center for Health Sciences, Memphis; on "Atypical Viral Infections of the Developing Nervous System"

This Continuing Medical Education offering meets the criteria for 4 hours of credit in Category 1 for the Physician's Recognition Award of the American Medical Association.

**For further information, write Dr. Mary R. Arnold, Chairman, Department of Pediatrics,
Roger Williams General Hospital, Providence, Rhode Island 02908**

Registration fee (includes luncheon). Pre-registration desirable.



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indis-
pensable element in Business Insurance . . . *Personal*
Service by an agent who knows you and your business.

SEMI-ANNUAL CME CALENDAR

FALL 1982

September

- 1 "HYPERCALCEMIA" (medical grand rounds), Clark T. Swain MD; Memorial Hosp
- 7 "THE PLACE OF LAPAROSCOPY & INTRA-ABDOMINAL DISEASE," Ira Anjoorian MD; St Joseph Hosp
- 8 "ALTERNATE METHODS OF TREATMENT OF CARCINOMA OF THE BREAST," Arnold Herman MD; RWGH
- 8 "ANESTHESIA CONFERENCE," Jayant Solanki MD; RWGH
- 8 "ORTHOPEDIC CONFERENCE," A. Louis Mariorenzi MD; RWGH
- 8 "SYSTEMIC VASCULITIS" (medical grand rounds), John A. Mills MD; Memorial Hosp
- 10 "THE PHYSICIAN'S ROLE IN HEART DISEASE PREVENTION," Paul Thompson MD; Kent Cty Mem Hosp
- 13 "CLEARER DEFINITION OF THE HYPOGLYCEMIC AND HYPERGLYCEMIC STATES IN THE GERIATRIC PATIENT," Horace Martin MD PhD; RIMC Gen Hosp
- 15 "THE NEWER GENERATION OF CEPHALOSPORINS," James Pennington MD; Newport Hosp
- 15 "ANESTHESIA CONFERENCE," James K.C. Ohn MD; RWGH
- 15 "CT SCANNING FOR SURGEONS," William Colaiace MD; RWGH
- 15 "EMERGENCY MANAGEMENT OF HEAD INJURY" (medical grand rounds), H. Thomas Ballantine Jr MD; Memorial Hosp
- 17 "ALLERGIC RHINITIS," Ned DiPasquale MD; Woonsocket Hosp
- 17 "NEWER ANALGESICS," Paul Dumas MD; Kent Cty Mem Hosp
- 17 "ECOG BLADDER CANCER PROTOCOL," Naeem Siddiqi MD; Ellen Spremulli MD; Allen Steinfeld MD; RWGH

September (continued)

- 21 "SUDDEN CARDIAC DEATH (OR WHAT BECAME OF THE BROKEN HEART)" (combined medical grand rounds), Carl L. Tommaso MD; RWGH/VAMC
- 22 "CLINICAL PATHOLOGICAL CONFERENCE" (medical grand rounds), Memorial Hosp
- 23 "CLINICAL NEUROPATHOLOGICAL CONFERENCE," Srecko Pogacar MD; Bertram Selverstone MD; RIMC Gen Hosp
- 24 "ANTI NUCLEAR UPDATE," Edwin C. Madden MD; John O. Pastore Jr MD; Kent Cty Mem Hosp
- 24 "MONITORING OF DRUGS FOR EFFECTIVE PATIENT CARE," Arthur Atkinson MD; Leslie Benck PhD; B. Birmingham PhD; Roger Dionne Pharm D; J. Dugas Pharm D; M. Lamson MD; Leslie Pritchard PhD; David Shand MD PhD; S. Weber Pharm D; RIMC Gen Hosp
- 27 "FRACTURES IN THE ELDERLY," Roy K. Aaron MD; RIMC Gen Hosp
- 29 "TEACHING SEMINAR - DERMATOLOGY," Louis Fragola MD; RIH

October

- 1 "BRADLEY FORUM 1982: BEHAVIOR DISORDERS OF ADOLESCENCE," Bruce B. Burnett ACSW; Anthony Dowling MD; Barry Garfinkel MD; William Lexington Grapentine MD; Michael G. Tramontana PhD; Bradley Hosp
- 1 "PERSISTENT CARCINOMA-IN-SITU; SURGERY vs CHEMOTHERAPY," Naeem Siddiqi MD; RWGH
- 1 "DEPRESSION," Thomas P. Hackett MD; Kent Cty Mem Hosp
- 4 "WHY DO THE ELDERLY DIE," Irving A. Beck MD; RIMC Gen Hosp
- 5 "CURRENT MANAGEMENT OF BURNS," Richard L. Testa MD; St Joseph Hosp
- 6 "ORTHOPEDIC CONFERENCE," Cyril J. Bellavance MD; RWGH
- 6 "OFFICE MANAGEMENT OF BRONCHITIS" (medical grand rounds), Sanford Chodosh MD; Memorial Hosp
- 8 "DIAGNOSTIC URETHRAL PROBLEMS," Naeem Siddiqi MD; RWGH
- 8 "EVOKED POTENTIAL," M. Faella MD; Kent Cty Mem Hosp
- 13 "CURRENT CONCEPTS ON THE ETIOLOGY OF INSULIN DEPENDENT DIABETES" (medical grand rounds), Aldo A. Rossini MD; Memorial Hosp
- 13 "TEACHING SEMINAR - DIAGNOSTIC RADIOLOGY," Daniel J. Hanson MD; RIH
- 15 "CARCINOMA OF THE BLADDER IN A YOUNG MALE," Steven I. Cohen MD; Alan Steinfeld MD; RWGH

October (continued)

- 15 "SEROLOGIC DIAGNOSIS OF VIRAL HEPATITIS," O. Kothari MD; Kent Cty Mem Hosp
- 18 "THE ELDERLY AS AN IMMUNO COMPROMISED HOST," Marcia D. Fretwell MD; RIMC Gen Hosp
- 19 "SICK SINUS SYNDROME" (combined medical grand rounds), Richard Carleton MD; RWGH/VAMC
- 20 "SURGICAL CONFERENCE," Phillip O'Dowd MD; RWGH
- 20 "HIRSUTISM - DEFINITION, EVALUATION, TREATMENT" (medical grand rounds), Bryson Ley MD; Memorial Hosp
- 20 "BHAT (Postcoronary Infarct Study)," Pantel Vokonas MD; Newport Hosp
- 20 "NUTRITION AND THE FETUS," Richard L. Naeye MD; Miriam Hosp
- 21 "CLINICAL PATHOLOGICAL CONFERENCE," I. Beck MD; RIMC Gen Hosp
- 22 "UNUSUAL CARCINOMA OF THE KIDNEY," Phillip O'Dowd MD; Naeem Siddiqi MD; Alan Steinfeld MD; RWGH
- 22 "UPDATING PULMONARY EMBOLISM," James E. Dalon MD; Peter H. Levine MD; Kent Cty Mem Hosp
- 25 "DEVELOPING EFFECTIVE EDUCATION AND TRAINING PROGRAMS FOR PERSONNEL INVOLVED IN THE CARE OF THE ELDERLY," Joyce Passos PhD; RIMC Gen Hosp
- 29 "125-I IMPLANT THERAPY FOR CANCER OF THE PROSTATE: REVIEW OF THE ROGER WILLIAMS GENERAL HOSPITAL EXPERIENCE," William S. Klutz MD; RWGH
- 29 "RADIOLOGY REVIEW," Gillian Newstead MD; Kent Cty Mem Hosp

November

- 2 "OUTPATIENT MANAGEMENT OF CHRONIC BRONCHITIS" (combined medical grand rounds), Sanford Chodosh MD; RWGH/VAMC
- 2 "BETA BLOCKERS & CALCIUM CHANNEL BLOCKERS," David Fortunato MD; St Joseph Hosp
- 3 "THE NINETEENTH ANNUAL MAURICE N. KAY PEDIATRIC SYMPOSIUM ADVANCES IN PEDIATRICS," David H. Baker MD; John F. Griffith MD; Fred Rosen MD; Abraham M. Rudolph MD; RWGH
- 3 "ORTHOPEDIC CONFERENCE," Frederick Johnson MD; RWGH

November (continued)

- 3 "THE RED CELL MEMBRANE SKELETON AND ITS DISORDERS" (medical grand rounds), Jiri Palek MD; Memorial Hosp
- 5 "HYPERCALCEMIA," Clark T. Sawin MD; Kent Cty Mem Hosp
- 8 "VENEREAL DISEASES IN THE ELDERLY," Jason Weisfeld MD MPH; RIMC Gen Hosp
- 10 "RECTAL BLEEDING" (medical grand rounds), Edward R. Feller MD; Memorial Hosp
- 12 "THE NEW CPR," Jacek B. Franaszek MD; Kent Cty Mem Hosp
- 15 "ETHICAL CONCERNS AND THE ELDERLY," Stanley Aronson MD; RIMC Gen Hosp
- 17 "ENVIRONMENTAL RESERVOIRS AND CELLULAR SITES FOR FALL-OUT RADIO-ACTIVITY," Belton A. Burrows MD; Miriam Hosp
- 17 "HEPATITIS B SYMPOSIUM" (3 presentations), Raymond Koff MD; David Snyderman MD; Thomas Starzl MD; RIH
- 18 "CLINICAL NEUROPATHOLOGICAL CONFERENCE," Stanley M. Aronson MD; RIMC Gen Hosp
- 19 "OSTEOPOROSIS," Robert W. Cali MD; Kent Cty Mem Hosp
- 22 "CANCER IN THE ELDERLY," Paul Calabresi MD; Robert E. Parks Jr MD PhD; RIMC Gen Hosp
- 24 "CLINICAL PATHOLOGICAL CONFERENCE" (medical grand rounds), Memorial Hosp
- 30 "THE IMPAIRED PHYSICIAN" (combined medical grand rounds), Herbert Rakatansky MD; RWGH/VAMC

December

- 1 "ORTHOPEDIC CONFERENCE," Henry S. Urbaniak Jr MD; RWGH
- 2 "PANCREAS AND BILIARY TREE DISORDERS AND THEIR TREATMENT," Nicholas Califano MD; Edward Feller MD; Michael D. Levitt MD; Peter Mueller MD; Andrew L. Warshaw MD; RIH
- 6 "GERONTOLOGY-HISTORICAL APPROACH," I.A. Beck; George Erikson PhD; RIMC Gen Hosp
- 7 "TIAS AND ANTICOAGULATION" (combined medical grand rounds), John C. Brust MD; RWGH/VAMC

December (continued)

- 7 "ENDOCRINE DYSFUNCTION INCLUDING MALE IMPOTENCE," Salvatore Allegra MD; St Joseph Hosp
- 10 "EARLY DETECTION AND TREATMENT OF CANCER," Domenic DiDonato MD; Kent Cty Mem Hosp
- 13 "SCHIZOPHRENIA," Richard Dudley MD; Woonsocket Hosp
- 13 "COGNITIVE CHANGES IN THE ELDERLY," Fredric C. Friedman EdD; Patricia Raymond PhD; RIMC Gen Hosp
- 18 "ACID ETCHED RESIN BONDED CASTINGS," Gus J. Livaditis DDS; RIH
- 20 "BREAST CANCER IN THE ELDERLY," Banice Webber MD; RIMC Gen Hosp

January

- 18 "ERYTHROPOIESIS IN THE ELDERLY" (combined medical grand rounds), Michael C. Friedland MD; RWGH/VAMC
- 20 "CLINICAL NEUROPATHOLOGICAL CONFERENCE," S. Pogacar MD; Roger S. Williams MD; RIMC Gen Hosp

Imagine... ...if there weren't an American Medical Association



Who Would...

represent your interests and your patients before Congress,
the courts, regulatory agencies, the media and other
important public forums?

NO ONE!

Join the AMA and make sure that there is an organization to
represent all physicians.

For more information or an application, call or write the AMA Office of
Membership Development at 312-751-6410, 535 N. Dearborn St., Chicago, IL 60610.



A Hospital Corporation Challenges Medical Practice: The Dilemma of Change

A short time ago, the Rhode Island Hospital presented to its medical staff a redefinition of its missions and goals, which are yet to be ratified by the trustees of the hospital. If adopted, they would prepare the way for a major transition from the current status to a proposed new status for Rhode Island Hospital, as follows:

1. *RIH Current:* A service-oriented community teaching hospital.

RIH Proposed: An advanced clinical and teaching hospital of national repute with a strong commitment to delivery of patient care services to the community.

2. *RIH Current:* Strong distinction between full-time and private medical staff.

RIH Proposed: Less distinction between full-time and private medical staff.

3. *RIH Current:* An affiliate of the Brown University Program in Medicine.

RIH Proposed: The major affiliate of the Brown University Program in Medicine, with continuous efforts to strengthen the affiliation.

4. *RIH Current:* Tertiary care a distinctive characteristic of Rhode Island Hospital as compared to other hospitals in fulfilling the health care needs of the people of Rhode Island.

RIH Proposed: Further development of the quality and scope of tertiary care services and also the quality and scope of primary and secondary care capability of the institution and fulfillment of health care needs of the people of Rhode Island.

5. *RIH Current:* Research role not well developed.

RIH Proposed: Greater role for research in the institution linked more strongly to graduate medical education and patient care programs.

6. *RIH Current:* Sense of community responsibility fulfilled through the provision of services.

RIH Proposed: Greater sense of community responsibility fulfilled through provision of services on and off the Rhode Island Hospital campus, as well as cooperative efforts with other hospitals, community agencies, and health care facilities.

There are many issues of enormous importance implicit in the above proposals. The effects



Melvin D. Hoffman, MD

of implementing these goals would be far-reaching and profound not only for the Rhode Island Hospital, Brown University, and its medical program; but also for other hospitals, whether linked with the medical school or not, all physicians, and the citizens of Rhode Island. While the medical staff individually has been asked to comment on the proposals, the staff as an organization has not been asked for its endorsement. It is likely that the new missions and goals of the Rhode Island Hospital will be ratified and their concomitant expanded programs implemented without the medical staff approval.

As a physician trained at the Rhode Island Hospital and as a member of the staff there for 25 years, I am concerned. As President of the Rhode Island Medical Society, I am concerned.

I am concerned because of the effects these proposals will have on the cost of health care in the State of Rhode Island.

The Rhode Island Hospital cannot be faulted for its efforts. For one thing, its proposals would improve the hospital's organization. Tying private physicians more closely to an enlarged full-time staff improves organization and also helps to define the roles for both full-time and part-time physicians. Also the proposals are necessary if

Brown University is to assume its place as a medical school of the first rank. The Rhode Island Hospital, with its abundant financial resources, is the only hospital in the state truly able to support a medical school. It is clear, too that broadened tertiary care services, Rhode Island Hospital's fourth goal, would be good for Rhode Island. The development of the Trauma Center and supporting services at Rhode Island Hospital are testimony to this likelihood. Also, the development of a full research program at Rhode Island Hospital closely linked to graduate medical education would bring into the state needed medical research and is necessary to the development of the medical school. Little research now takes place locally because facilities and the financial resources to support them have not yet been developed. Finally, placing Rhode Island Hospital employees in settings off the hospital campus would improve community services and also enlarge the watershed of patients who would be attracted to the hospital.

Now that all of the above has been acknowledged, however, it is necessary to note that each possible benefit of the proposals can be matched by possible negative effects. The building of a national reputation by the hospital probably would entail decreasing the quality of local services, while raising costs. Reorganization could cost many Rhode Island physicians their close ties with the hospital. Centralization of Brown's activities at the Rhode Island Hospital could threaten the affiliations with other hospitals, or at least would markedly change the current relationships. Other hospitals in Rhode Island which might be able to provide nicely the technical quality care necessary for the management of their patients at a lower cost than the Rhode Island Hospital may not be able to compete in the establishment of new services. Research requires money, which is most likely to come from increased costs to the consumer. And finally, most dramatically for physicians, the expansion of the Rhode Island Hospital services outside of its campus means further invasion of the traditional realm of the private physician and adds to the forces threatening destruction of the physician/patient relationship as it now exists within the community.

Among the additional changes which we can expect to occur at the Rhode Island Hospital is trimming of the present 900 physicians on the medical staff. Increased demands will be placed on the physicians remaining to teach, to participate in hospital-based activities, and to commit

themselves to the Rhode Island Hospital. These new, expanded activities will compete for time — time now spent on the care of patients — and will transform the traditional service role of the physician. The result will be a caste system in which access to hospital resources (beds and technology) will be awarded to a physician based upon his or her services to the institution. The chiefs will exert more authority and all efforts will be coordinated through the Planning and Resource Allocation Committee.

Therefore, because of the seriousness of the issues, I believe that the present plans for comment and approval of the above proposals should be revised. As it now stands, physicians who might oppose aspects of the plan are open to punitive actions by the hospital administration and department chiefs, so that the system of due process now in effect is less than adequate whenever the interests of the hospital and the interests of staff physicians differ. All members of the hospital team — administration, trustees, chiefs, full-time physicians, and staff physicians — must be accorded equal protection by truly fair hearings.

Furthermore, physicians not on the staff of Rhode Island Hospital, along with other institutions mentioned above, should participate in the discussion. The effects of the new missions and goals on staff patterns at other hospitals in Rhode Island bear close scrutiny by the physicians who would be involved. These hospitals may be forced to curtail certain medical and surgical procedures as a result of the hoped for centralization of programs indicated in the Rhode Island Hospital proposals. It is likely, also, that there will be an increased competition between the full-time physicians practicing through the Rhode Island Hospital and those affiliated with other institutions, as well as those physicians who do not maintain an institutional affiliation.

In the light of the above, without drawing any conclusions as the merits of the proposals, I urge the following:

- 1) Careful study of the proposals by members of the Rhode Island Medical Society.
- 2) Further review and comment by the medical staff of the Rhode Island Hospital, along with an eventual vote on the merits of the proposals.
- 3) Address of the power problems in Rhode Island Hospital by reexamination of the present system of due process and development, if necessary, of a more just system.
- 4) Careful review by members of the Rhode

(Continued on page 357)

The Greying of Rhode Island

Youth is a gift of nature but old age, it is said, is a work of art. This metaphor may be valid for some individuals reaching advanced age but for most the legacy of the senior years may be an emotionally and neurologically impaired estate.

In many of the developing nations today, as in the history of our own nation, the number of individuals older than 65 years of age is negligible and their care more a family than a societal concern. However, significant reductions both in mortality and fertility rates have combined in recent decades to make our population truly older. About 6 per cent of the present global population is older than 65 years of age; in western Europe and in much of the United States the proportion approaches 14 per cent. By the year 2000, about 20 per cent of Rhode Island's living population will be older than 65 years of age and 3 per cent will be beyond the age of 80 years. The developed nations of the world are now rapidly approaching that age profile characteristic of a hypothetically stationary population with a mean life expectancy, at birth, of about 74 years. Within the next generation a stabilization of an age profile characterized by minimal attrition until the sixth decade may indeed be achieved.

These changing trends are worldwide. By the completion of the current century, there will be close to 400,000,000 individuals in the world older than 65, of which 60,000,000 (more than the entire population of Europe at the time of Julius Caesar) will be 80 years of age or older.

This issue of the *Journal* contains papers on the demographic and social realities of this aging trend. Each of the three contributions acknowledge the movement to an age distribution in which the elderly constitute a significant and increasing fraction of the living population, and each touches upon some of the implications of this phenomenon.

The ramifications of this demographic transition are indeed considerable. There will be an expanding segment of our population (approaching 15-20 per cent) which will be economically unproductive thus requiring that we reallocate our resources in order to fulfill the unique needs of this population. These older men and women will also require a substantially greater *per*

capita investment of medical and nursing care than will the younger members of the population.

The emergence of a substantial population of individuals older than 65 years of age will yield yet another major problem. In addition to dramatic increases in the incidence rates of vascular and rheumatic disease, our society will witness an increasingly sharp rise in the prevalence of senile dementia. Already various epidemiologic surveys in western Europe and this country have shown that about 5 per cent of individuals older than 65 years exhibit a major deterioration of personality accompanied by an inability to cope with the customary tasks of daily living. Yet another 10 per cent of the elderly population show a milder form of organic dementia generally not requiring nursing care or institutionalization.

Thus, the shift in age profile may cause what a number of neurologists refer to as the next great epidemic. In 1907, Alois Alzheimer published a brief note detailing a hitherto unrecognized, distinctive dementia affecting a 51-year-old woman. During the early years of the twentieth century the disease was considered to be very uncommon. By 1982 current estimates indicate a minimum of 1,000,000 patients in the United States with clinically evident Alzheimer's Disease. By the end of this century the prevalence of this disease will have risen to 1,600,000 patients assuming that the survival-interval of the disease will not be altered significantly during the next two decades. Thus, while the US population has grown about 3.8-fold during the course of the current century, the national incidence of senile dementia is projected to rise twelve-fold. The legislature of the state of Rhode Island, in acknowledgement of this emerging problem, has recently created a Commission to study the ramifications of senile dementia upon the laws, resources, and institutions of our state and to make appropriate recommendations.

Those who devote their professional lives to the care of the ill and distressed certainly need no reminder of the fact that geriatrics and the attendant problems of senile dementia will continue to occupy an increasing fraction of their hours.

SMA

Rhode Island's Pocket Medical Profiles for Senior Citizens

To the Editor:

The Rhode Island Department of Elderly Affairs would like to share with members of the Rhode Island Medical Society the results of our two year old project to distribute Pocket Medical Profiles.

The Department of Elderly Affairs is proud of this program developed in cooperation with the Rhode Island Pharmaceutical Association, which is now of international renown following a recent article in the "Welcome Trends" section of *Pharmacy Magazine* and the US Department of Health and Human Services' "Human Development News." Two hundred agencies from 42 states, Canada, Puerto Rico, and Egypt have requested additional information and Pocket Medical Profile samples.

The profile is a plastic card holder which provides space for the senior's name and address,

names of doctors, medical problems, allergies, emergency information, plus additional room to list medications the person is taking.

The Department of Elderly Affairs has distributed 40,000 profiles to seniors through senior centers, nutrition sites, clubs, housing and pharmacies. Seniors' response has been enthusiastic. They find the card holder useful for carrying bus passes, health cards, and other needed cards in addition to the information on the medication card.

Any physician interested in more information about the profiles or obtaining them for patients may contact the Department of Elderly Affairs at (401) 277-6880.

Anna M. Tucker
Director

Rhode Island Department of Elderly Affairs

Smoking Among School Children Revisited

To the Editor:

Twelve per cent of Americans between the ages of 12 and 18 years are cigarette smokers — down from 16 per cent in 1974.¹ The rates are slightly different for males and females, 11 per cent and 13 per cent respectively. In 1980 the *Rhode Island Medical Journal* reported that 18 per cent of public school children in Rhode Island were cigarette smokers. Female students smoked in greater proportion (21 per cent) than male students (17.6 per cent). Characteristics such as minority status, parents' smoking behavior, parents' education, and friends who smoke all were found to be significantly related to respondents' smoking behavior.²

In December, 1981 I conducted a study enti-

tled "What Influences Teenage Smoking?" as my project in a school science fair. Using a modified version of the Rhode Island questionnaire, I surveyed 590 students in two public schools (grades 7-9) in a Pennsylvania suburb.

The results reflect the findings of the Rhode Island study. I found that a larger proportion of female junior high school students smoked (15.1 per cent) than did male students (7.9 per cent). Smokers were also more likely to report smoking mothers (64.7 per cent) and smoking fathers (57.4 per cent) than were non-smokers, 37.8 per cent and 33.6 per cent, respectively. Sixty-two per cent of smokers' older siblings also smoked cigarettes compared to 23.8 per cent of non-smokers' older siblings. Finally, smokers reported an average of 4.4 friends who smoke com-

pared to 0.6 smoking friends among non-smokers.

These findings compare favorably to both the national and Rhode Island studies among males. Among females, however, both this study and the Rhode Island study show an alarmingly high proportion of smokers. The pattern of correlates is consistent across all three studies. The smoking behavior of parents, siblings and peers continues as one of the most important factors that influence teenage smoking. As more adults quit smoking and fewer teenagers begin, there may be a delayed, beneficial response among other teens

and pre-teens. Therefore, prevention and cessation efforts must be continued at all levels if the problem of smoking among school-aged Americans is to be substantially reduced.

Adrienne Sweeney
Cardinal O'Hara High School
Woodlyn, Pennsylvania

References

- ¹ American Cancer Society: Dangers of Smoking — Benefits of Quitting, New York. 1980.
- ² Marshall RJ: Cigarette smoking among public school children in Rhode Island. *RI Med J* 63:2 1980.

President's Page

(Continued from page 354)

Island Medical Society of the possible effects of these proposals on their practices.

5) Full Public disclosure of the progress of the proposals as they receive attention by Brown University and other health care institutions, the community and state governments, and representative patient and consumer groups.

6) Then, when proposals are approved, full involvement by the medical staff in their implementation.

I invite your reactions. Please forward any comments to me at the Rhode Island Medical Society or to Melvyn Gelch, MD, President, Medical Staff, Rhode Island Hospital, Eddy Street, Providence, Rhode Island.

Melvin D. Hoffman, MD



Working together. It can make the difference.

There are certain times when working together helps you accomplish what you couldn't alone.

In the medical profession, it can save lives.

The American Medical Association and your state and county medical societies believe in the value of teamwork — and the necessity of it, in the face of an increasingly complex professional environment.

We also believe that medical societies have certain tasks that the individual physician couldn't possibly assume — and shouldn't have to.

For example, to keep government regulations from interfering with your practice, we effectively repre-

sent your interests at local and national levels.

And to keep you up to date on the latest medical advances, we publish JAMA, specialty, state, and county journals.

Why do we believe that teamwork can make such a difference?

Because the very existence of the AMA is solid proof that when physicians work together, they can make their own decisions, protect their own freedoms, and control their own destinies.

And when you have a goal like that, working together makes all the difference in the world.

Join Your Medical Societies Today.

For more information, contact your county or state medical societies, or call the AMA collect at 312/751-6196. Or return the coupon below to your state or county medical society.

- ☐ Please send me information on AMA, county, and state society membership.
- ☐ I am a member of my county and state societies; please send me information on joining the AMA.

Name

Street

City State Zip

County

The Domain of the Elderly

The Demographic Data Presented Suggest Numerous Questions Upon Which Research Can Be Focused

Stanley M. Aronson, MD
Renée R. Shield, MA

The elderly have always been with us, but never in significant numbers until this century and then only in the developed, industrial nations of the temperate regions. Historically, the elderly have represented but a small fraction of the living population, and their care and disposition have been socially managed either within the nuclear family household, in "traditional" communities or as isolated patients in community facilities. In the past the few surviving elderly have often served uniquely as oral historians, political leaders and adjudicators, esteemed story-tellers or entertainers, midwives, healers, magicians (and shamans), or experienced craftsmen. However, until recent decades the elderly have not achieved visibility as a politically significant, coalesced population.

The present paper presents demographic data concerning the shifts in the ages of populations in

the world, the United States, and specifically Rhode Island.

The data highlight several questions regarding the lives of the elderly in Rhode Island and the rest of the United States. Within the context of the numbers presented here, the authors seek better to understand the quality of life for contemporary elderly and how our planning may be improved for their sharply increasing numbers anticipated in our society in the decades ahead.

The extent to which the elderly constitute a measurable fraction of the population is quite variable, as is illustrated in Table 1, which shows as much as a six-fold difference among nations. Demographers have sometimes defined the population profile of various regions as ratios of population below the age of 14 years compared with the population between the ages of 15 and 64 years, thereby providing some notion as to how many preproductive persons (ie, children) are supported by the productive fraction of the society. A similar dependency ratio may be elaborated, but now in terms of the elderly when their numbers are compared with the productive segment of the population under inquiry. In Asia, for example, there are approximately 90-100 individuals in the productive years of life for every one individual living beyond the age of 80 years; in Africa, there are about 75 productive individuals per elderly person; and in the United States and Western Europe, 30 productive persons for each elderly person (in Rhode Island, the current ratio is 23 : 1).

From the Section of Community Health and the Department of Anthropology, Brown University, Providence, Rhode Island.

Stanley M. Aronson, MD, University Professor of Medical Science, Brown University.

Renée R. Shield, MA, Doctoral candidate on the cultural aspects of aging, Department of Anthropology, Brown University, Providence, Rhode Island.

Table 1. Age Distribution of Selected Populations Expressed as Percentages in Designated Age Categories*

		Age Categories (years)				Ratios**			
Region		A	B	C	D	B***	A × 100 B	C + D × 100 B	D × 100 B
		0-14 yrs	15-64 yrs	65-79 yrs	80+ yrs	D			
Africa:	Tunisia	46.3%	50.2%	2.9%	0.6%	84	92	7	1
	Uganda	46.1	50.1	2.7	1.1	46	92	8	2
	Zambia	45.8	51.8	1.8	0.6	86	88	5	1
Asia:	India	41.8	54.9	2.7	0.6	92	76	6	1
	Pakistan	45.9	51.0	2.5	0.6	85	90	6	1
	Philippines	43.2	53.4	2.9	0.5	107	81	6	1
	Malaysia	42.8	53.3	3.6	0.3	178	80	7	1
South America:									
	Argentina	29.4	63.1	6.4	1.1	57	47	12	2
	Bolivia	41.9	54.6	2.6	0.9	61	77	6	2
	Chile	39.1	56.2	3.9	0.8	70	70	8	1
	Colombia	46.6	50.5	2.3	0.6	84	92	6	1
Europe:	Finland	24.2	66.4	7.1	2.3	29	36	14	3
	France	23.7	62.9	10.8	2.6	24	38	21	4
	Germany	23.3	61.1	13.3	2.3	27	38	26	4
North America:									
	Canada	29.6	62.3	6.5	1.6	39	48	13	3
	United States	22.6	66.1	8.9	2.4	28	34	17	4
	Puerto Rico	36.5	57.0	5.1	1.4	41	64	11	2
	Rhode Island	20.3	66.3	10.5	2.9	23	31	20	4

* Data derived from World Health Organization, Demographic Yearbooks, 1970-79.

** The last three ratios are age-dependency measures of a population. Thus $\frac{A}{B} \times 100$ is a measure of that fraction of a population (0-14 yrs) too young to work, but supported by the potentially working population (15-64 yrs). Similarly, $\frac{C+D}{B} \times 100$ provides us with a measure of the extent to which a segment of a defined population is too old to be economically productive and must be supported by those 15 to 64 years of age. $\frac{D}{B} \times 100$ is merely a subset of $\frac{C+D}{B} \times 100$.

*** Number of individuals 15-64 years of age per individual 80+ years, and is merely the reciprocal of $\frac{D}{B}$.

Table 2, based on the decadal census (1900-1980), provides us with the demographic trends in the Rhode Island population. The preproductive population (0-14 years) per cent is diminishing while the post-65-year population is expected to reach about 22 per cent of the state by the year 2000.

These different dependency ratios in Tables 1 and 2 dramatize the various meanings attached to the notions of dependency and productivity. They are cultural ideas, highly specific, yet quite variable. In the United States, for example, the dependency of a newborn child is "natural," and the care needed to provide for the newborn is considered desirable, fitting, and beyond question. In some cultures of the world, the dependency of the extremely old may also be considered "natural" and caring for the dependent elderly is as appropriate to adult behavior as caring for a newborn infant. In much of the United States, however, the state of adult or elderly dependency is regarded as demeaning, if not shameful. The statement, "We hope never to be-

come a burden on our children," is too frequently uttered.

Another cultural conception is involved in the notion of productivity. For the purposes of the figures contained in Table 1, productivity refers to adults involved in work which results in monetary remuneration, that is, productiveness in strictly economic terms. Productivity in this sense has a narrow economic meaning overladen with associated ideas of value and self-worth. The notions of economic productivity and value which are linked in our society are often conceptualized more separately by others. In some cultures, for example, while a person may relinquish his economic role at a particular age (thereby ceasing to be productive in our terms), he may still assume a more esteemed role within the society, which may then perceive the individual to be a mediator with the gods, a wise and powerful human asset. In many places of the world, too, children under the age of 15 are economically indispensable to the society. Likewise, the importance of the elderly as caretakers of children cannot be underestimated,

Table 2. Age Distribution of Rhode Island Population Derived from Census of 1900 to 1980 with Projections to Year 2000*

Census Year	Age Category (years)				Ratio $\frac{B}{D}$
	A	B	C	D	
	0-14	15-64	65-79	80+	
1900	28.1%	67.3%	3.9%	0.7%	96
1910	27.6	67.8	3.9	0.8	85
1920	28.9	66.1	4.2	0.8	83
1930	27.9	66.3	5.1	0.7	95
1940	22.1	70.3	6.7	0.9	78
1950	23.5	67.6	7.4	1.5	45
1960	28.4	61.2	8.7	1.7	36
1970	26.5	62.5	9.2	1.8	35
1976	21.2	66.3	10.4	2.1	32
1980	20.3	66.3	10.5	2.9	23
2000	18.0	59.7	19.1	3.2	19

* Data from U.S. Department of Commerce, Bureau of Census, 1980 Census.

Table 3. Percent of US Population Residing in Nursing Homes/Homes for Aged

Survey Year	Age Range (years)					
	55-64		65-74		75+	
	Male	Female	Male	Female	Male	Female
1965	2.5%	1.6%	2.5%	2.6%	6.4%	8.0%
1970	2.4	1.6	3.6	2.4	6.3	8.9
1975	1.9	1.2	2.9	2.5	7.4	10.0

especially since the caretaking role allows for others to work for material gain or money. Much cultural relativity, therefore, attends our seemingly straightforward notion of productivity.

Institutionalization

With the advent of substantially larger numbers of elderly individuals living together (whether it be in nursing homes, homes for the elderly, senior citizen housing developments, or specifically designed sunbelt villages), the need arises to understand not only the individual, but also the nature and social dynamics of the communities of the elderly.

The aging population is clearly but a fraction of those individuals chronically institutionalized in developed societies. The larger population of inmates includes those in correctional institutions, mental hospitals, chronic disease hospitals, homes for the mentally handicapped, homes for the physically handicapped, homes for neglected and dependent children and training schools for

juvenile delinquents. In 1970, a little over 2,000,000 inmates had been officially recorded in the United States.¹ Of these, close to 1,000,000 were in homes for the elderly. Thus, in 1970, the total number of inmates was 1,012 per 100,000 United States population and 1,123 per 100,000 Rhode Island population. By 1978 the number of persons sheltered in US nursing and related care facilities had risen to 1,240,000.

Notwithstanding the variety of institutions listed above, there are features of institutional life which unite them. As Erving Goffman, the sociologist, has illustrated in his book *Asylums*,² total institutions are marked by a state of separation from the outside world, by internal divisions (between "staff" and "inmates"), and by various mechanisms by which individuals adjust, thus coping with the realities of their institutionalization.

Two things demand our immediate attention: First, there is a need to better evaluate institutional life beyond the judgments of whether individual institutions are bad or good. From the outside we can determine the appropriate standards of care given those in institutions and ensure that those standards be upheld. Moreover, we must learn how those who are institutionalized experience their lives. In order to provide better care it is necessary to reach an understanding about institutional life from the point of view of those living it. Secondly, our efforts must be directed at the overwhelming numbers of elderly who constitute half of the institutionalized population in this country. That so many of our institutional beds are occupied by the elderly is an astounding situation which must be evaluated and researched. How are the lives of the institutionalized elderly different from other institutionalized individuals? Given increased longevity in this and other developed countries, how can the quality of these lengthened life spans be improved?

Table 3 indicates the percentage of the US population residing in nursing homes or homes for the aged, ascertained in successive *National Center for Health Statistics* surveys undertaken in 1965, 1970, and 1975. These data are separated in terms of sex and age, but some of these percentages are deceptive, for they appear to indicate a near gender equality in the nursing home population of the US. In fact, however, while the percentage of all living males, for example, beyond age 75 years living in nursing homes was 7.4 per cent and the equivalent fraction for females was 10 per cent, the total *number* of living

females 75 years of age or older is substantially greater than the number of living males of comparable age, and therefore the *number* of female nursing home residents is correspondingly greater than the number of males.

It should not be assumed, incidentally, that those elderly persons confined to an institutional bed are necessarily restricted to the nursing homes or to the homes for the elderly. In reality, a substantial fraction of the individuals in the *acute* hospitals of the state of Rhode Island are also 65 years of age or older; 44 per cent of the acute admissions to the general hospitals of Rhode Island in 1980 were patients who were 65 years of age or older.

While a small number of individuals living in homes for the aged in Rhode Island are younger than 70 years, the median age is 83.3 years and, at the upper end of the age spectrum, 10 per cent of those admitted are 90 years of age or older.

In one typical home for the aged in Rhode Island, the median duration of stay (from admission to death) was 2.8 years. A more careful review of some admissions and length of stay information suggests that the duration of stay complies with a bimodal distribution with relatively large numbers of individuals dying within the first three months of their assignment to a home for the elderly. The incidence of death per increasing month of stay diminishes, but then slowly rises in residents dwelling more than three years in the home for the aged. These data would seem to indicate that a great amount of stress attends the initial disposition of the elderly to homes for the aged. The difficulties encountered in the moves to these homes are of particular significance when appreciated within the context of the large amount of mobility that the elderly commonly experience, as discussed later.

The typical resident of a nursing home in the US is a female (70.4 per cent), previously married but now widowed (63.9 per cent), and white (93.9 per cent). As the age of nursing home residents advances, the frequency of these three characteristics (female, widowed, white) increases significantly.

The preponderance of females in the elderly population is not necessarily a characteristic of all countries. If one studies the population of individuals 80 years of age or older, females predominate in the well-developed countries of western Europe and the western hemisphere, but are in fewer numbers than males of 80 years of age or older in countries such as Pakistan and in virtually all African nations. Cultural considerations pertaining to the status of women in these

societies have a large influence on the disparities in these figures as well.

Mobility

A great deal of mobility characterizes the senior years of the elderly population. Of the total population admitted to the acute hospitals of Rhode Island during 1980, the overwhelming majority (98.6 per cent) were living in private homes prior to admission; and of these 133,800 admitted during this year, fully 45 per cent were 65 years of age or older. It would thus appear that the vestibule of chronic institutionalization for the elderly individual is reached through the portals of an acute general hospital. Upon discharge, over three-fourths of hospitalized individuals return to their private homes while about 9 per cent are assigned to a nursing facility. Only 4.4 per cent of the acute hospital population die while as inpatients.

When a similar population profile of the nursing facilities of Rhode Island is reviewed, it becomes apparent that the private residence represents an uncommon source of clients, for over 80 per cent of patients are derived from the regional acute hospitals. The major distinction in population dynamics rests in the reality that homes for the aged represent the final place of residence for about two-thirds of all of those admitted (ie, about 65 per cent of the residents die during their stay). Only 14.3 per cent are discharged to their homes (and many because they are terminal and wish to die at home).

It is apparent that there is a surprising amount of movement between the private residence, the acute hospital, the apartment buildings confined to the elderly, the nursing facilities, and the homes for the aged. Indeed, an elderly resident of a home for the aged may be brought to an acute hospital for a brief stay several times in a year. Clearly, it is necessary to study the effect of these moves on the patients, and then devise measures to reduce the inevitable stress.

Why Rhode Island?

Rhode Island possesses certain rather special demographic characteristics: it possesses an extremely stable total population, with negligible movement in and out of the state, and a population which was not changed significantly in number during the last decade, remaining at approximately 948,000.

The average age of the Rhode Island population has gradually increased and quantitative population profiles reflect this trend. The Rhode Island population pyramid for 1970 conforms to

a pattern typical of societies well beyond the demographic transition. Furthermore, of all the states in the US Rhode Island is one of the two or three claiming the greatest percentage of individuals beyond the age of 65 years.

During the twentieth century, two important trends are apparent in the demographic profile of the Rhode Island population: first, that the percentage of individuals below the age of 14 years has diminished to about 20 per cent and is steadily decreasing; and second, that the percentage of individuals beyond the age of 80 years, which had been less than 1 per cent prior to 1930, has now risen to 2.9 per cent (1980 census) and is projected to reach 3.2 per cent by the year 2000.

Rhode Island possesses an excellent state epidemiologic service and a readily accessible data-gathering and retrieval program for vital statistics. For many reasons, therefore, Rhode Island is an ideal laboratory for the study of the aging community. It has a small but stable and well-documented population and, on average, one of the oldest populations in the United States. It may be safely inferred that the demographic and sociological phenomena materializing in the elderly population of Rhode Island will inevitably arise in other states and nations as this second demographic transition overtakes them.

Cultural Considerations

The demographic data presented here suggest numerous questions upon which research should focus. One of us (RRS) is initiating a study of some of the socio-cultural ramifications of this information within one or more institutions for the elderly within Rhode Island. The anthropological research will focus on cultural questions including those mentioned above. Of particular interest will be the description of life in institutions by those experiencing it. What is it like, from their points of view?

The research is designed to provide a useful description of life in institutions for the elderly. Comparison will be made among different kinds of care, from that given under circumstances of an acute hospitalization to the minimal need for care in places such as apartment complexes for the elderly.

Within institutions for the elderly an empirical question to be researched is whether the individuals residing there constitute a "community" or not. Are there shared values, shared fate, traditions, and other elements held in common which justify their being considered a separate community? If these be communities, what distinguishing characteristics do they have, and how

are they separate from other communities?

How do people within these institutions organize themselves into groups? Little is known about group formation in institutions for the aged; Are there patterns? Do individuals make friends with others of the same religion, same ethnic origin, same street, same organic deficit, same elementary school, or by previous occupation? What is discussed? How does news penetrate inside an institution? With what kind of meaning is it invested? How does information circulate within the institution? Do people cooperate with each other; if so, to what degree and under what circumstances? What are the relationships between staff and residents? How are visits and visitors managed by the residents?

Who become the leaders within institutions housing the elderly? How is authority displayed, maintained and negotiated? What changes take place over time? How are changes made and perceived by staff and residents? How are moves made and experienced? How is conflict handled? How is the topic of death managed? How do people react when one of them dies?

How are sexual feelings handled by the group and by individuals? What kinds of taboos are evident in behavior, conversation, or both.

How do the individuals perceive their lives? What is yearned for, cherished, regretted? How stressful is the move to the home? How stressful are moves within the home or to other institutions? How is territory maintained by each individual?

What are the relationships between the patients and their families? Who visits, how often, in what way, and with what outcome? Are residents with visitors more prestigious than residents without visitors? How are joint decisions made by the resident and his/her family?

These questions map an investigative territory which may yield important information.

Providing for the physical needs of a rapidly growing segment of our population is but one part of our society's responsibility towards the elderly. The answers to questions such as those we have listed above and the comparisons made between various institutions for the elderly both in the United States and in other countries of the world will enable us better to care for as well as reincorporate the elderly into our society.

References

- ¹ Census of Population: 1970, Persons in Institutions and Other Group Quarters. US Bureau of the Census.
- ² Goffman E: *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. New York, Doubleday, 1961.

Brown University, Box G
Providence, RI 02912

If you're disabled, what happens to your earning power?

Think how an unexpected accident or sickness could halt your income at any moment and you'll realize how important Disability Income Insurance can be. Now . . . by applying for this policy, you can assure yourself of steady, continuing income . . . benefits that go to work for you when you're disabled.

This policy is
Endorsed
by:
RHODE ISLAND
MEDICAL SOCIETY

As a member of the Rhode Island Medical Society, you'll get this coverage at a cost less than an individual policy.

For specific information on costs and coverage, write or phone the administrators.

Administered by:
 **LESTER L. BURDICK, INC.**
Loyalty Group Insurance

10 POST OFFICE SQUARE, BOSTON, MA 02109
(617) 426-0020

Local Representative: **JAMES M. FIGARA** (401) 434-7091

Underwritten by: **COMMERCIAL INSURANCE COMPANY**, 100 Wood Avenue South, Iselin, New Jersey 08830 • (201) 321-3800

Aging, Longevity, Prevention and Cure: Our Professional Futures

The 1981 Nathan J. Kiven, MD Oration at The Miriam Hospital

Alexander Leaf, MD

We hear much of the successes of biomedical research over the last 30 years. Despite the fact that government and the federal office of management and budget (OMB) apparently don't fully appreciate what has happened, the accomplishments are indeed impressive. If our biomedical research establishment survives current and forthcoming fiscal constraints, we may safely anticipate an acceleration of understanding of biologic processes in health and disease in the next one or two decades. Understanding of nature's secrets has the quality of a chain reaction, as each fact established serves as the key to answers to more secrets, a healthy chain reaction with only an explosion of potentially useful knowledge as its final product.

Nevertheless, we have to acknowledge to our critics that despite our better understanding of biochemistry, physiology, molecular and cellular biology, genetics, and immunology our under-

standing of life processes in health and disease is still rudimentary. We don't yet know the causes of the major incapacitating or lethal diseases that afflict citizens in our advanced industrial countries. Heart disease, atherosclerosis, hypertension, arthritis, diabetes, senility, and cancer are not yet understood at a level that provides us, for the most part, with either the ability to cure or to prevent their occurrence. Life processes prove to be unbelievably complex and public expectations of quick answers with practical applications are unrealistic. One feels confident, nevertheless, that the pursuit of understanding by well-trained fertile minds using the appropriate tools of science will achieve the sought-after goals, but the delay and expense before such success is achieved may both be greater than generally admitted.

What then happens to the practice of medicine during this continued stage of incomplete understanding? The major thrust of our professional activity is heavily weighted toward curative medical practices. Our work begins when the patient comes to us with his or her complaints. It is a traditional activity of physicians, honored by the public, and rewarded lucratively by third party payers. Why should we do anything else? The relief of suffering will always constitute an important function for us; for the stricken individual almost nothing in the world is as important as the possibility of relief and cure that his physicians offer. But we cannot as a profession personally claim much credit for the striking improvement in health and longevity that has occurred since

From the Department of Medicine and Department of Preventive Medicine and Clinical Epidemiology, Harvard Medical School and the Massachusetts General Hospital, Boston, Massachusetts.

Alexander Leaf, MD, Ridley Watts Professor of Preventive Medicine and Professor of Medicine, Harvard Medical School and Physician, Massachusetts General Hospital, Boston, Massachusetts.

the turn of this century. Improved sanitation, housing, food supplies, and education have done far more for the public health than have all the single physician-patient encounters which are the time-honored mode of medical practice.

Let me be clear that I do not deride this traditional role of physicians. Not at all! There will always be a need in any society for this important and compassionate function. But we need to keep our activities in perspective and not attribute to ourselves more than we can accomplish. There are even some of our detractors who think we may be overcharging the public for what we can actually contribute to health. At least a modicum of humility is warranted in view of the great gaps in our understanding of many of the conditions we are called upon to treat.

Changes in Survival

At a time when medicine has become more sophisticated and expensive our population has been undergoing striking changes in survival. There has been a large change in the age structure of our US population. Dorothy R. Rice, Director, National Center for Health Statistics of the Department of Health and Human Services, has reviewed the age changes that are occurring now and which will affect our population and health costs through the year 2000 (Tables and Charts for Living Longer: Demographic Changes and Health Care, 1981). It is evident that the proportion of those over 65 is increasing with those over 85 years of age the single most rapidly increasing segment of our population. Forty-five per cent of those over the age of 65 suffer a limitation in their activities as compared with 15 per cent for the population as a whole. This age group is the largest consumer of health services in short-stay hospitals and mental institutions and comprises almost the total residents of nursing homes. The cost of their care per capita averages some three times the cost of care per capita for the total population.

The elderly in 1980 comprise 11 per cent of our population, and by year 2003 they will be 15 per cent of the total. Again it is evident that per capita they are the largest consumers of health services. The implications of these demographic findings to the health care system are great. Not only are the elderly the most frequent users of our services, but they are also the most likely to suffer the most serious illnesses. Cancer, heart attacks, and strokes affect the elderly disproportionately. Conditions quite easily tolerated by younger individuals constitute serious illnesses in

the fragile elderly, and complications following necessary surgery, procedures, or treatments occur all too often in our elderly patients. Loss of adaptability to environmental stress is the hallmark of aging, and disease is the consequence of this loss. My point is that the elderly are not only the most frequently ill, but also the most seriously ill. They fill our large tertiary-care teaching hospitals, the most expensive of all medical facilities. On my medical service in a large urban teaching hospital they have occupied 50 to 60 per cent of the beds. Their health needs are among the most serious and expensive. Often when they have had maximum benefit from their acute hospitalization they become protracted disposition problems because of senility, incontinence, or loss of locomotion.

Thus this elderly 11 to 15 per cent of our population account for a major portion of the high medical costs confronting society. I do not complain or begrudge them this support, but, as the late John Knowles used to say, "There is no limit to the medical resources that can be expended on a dying person . . ." and no group are as likely to be dying than our hospitalized patients over 70 years of age. This may sound callous to you, but the facts are that as our technology, procedures, medications, and hospital care become more sophisticated, our efforts on behalf of the seriously ill increase and the costs rise exponentially, while the benefits to the elderly individual and to society must diminish. Here we confront one of the central ethical issues of Medicine. How do we allocate scarce and very expensive medical resources with the greatest likelihood that their use achieves maximal benefit? As a corollary, Who must go without? Who decides? And on what bases?

I don't have answers to these hard questions, but surely no one of us sees the future of Medicine as one in which half of our society is looking after the maintenance of the other half whose lives are sustained by respirators, artificial hearts, and other synthetic organs. I think we would all agree that such is not the mission of Medicine, but that seems to be the direction in which we are headed at this time of burgeoning technology and an understanding of biology in health and disease insufficient to enable us to achieve "real cures."

What should we physicians be doing? Well, first of all we should continue much of what we are presently doing. There will always be an important role for us to relieve suffering, allay anxiety, and assist in the cure of reversible disease. There

are enough correctable or curable maladies afflicting all ages to keep us quite busy.

Need for Assessment

We need also to evaluate much more carefully than in the past what we are accomplishing with our panoply of diagnostic procedures and therapeutic measures. Which improve practice and benefit our patients and which may even be harmful? The Oslerian tradition of careful observation remains fundamental to good medical practice, but today we can do much better than each of us in our practices relying heavily upon our own anecdotal experiences. Modern data processing allows us now to compile institutional experience in practice. It should not be acceptable today for untried new diagnostic techniques or therapies to be introduced into general practice until they have been thoroughly tested for efficacy, efficiency, and safety. The experience with the flurry of heart transplants post-Christian Barnard should not recur. Such matters should be thoroughly tested in one or more designated centers before being released for general usage.

My colleagues have established a Health Practice Assessment Unit, which chose as its first task the examination of our medical intensive care facility. I had concerns whether that very expensive unit was helping the patients sent to it. My colleagues logged into a computer data base the historical information, physical and laboratory findings, diagnostic and therapeutic interventions, and finally the outcome with, at this time, a three year follow-up on over 90 per cent of the patients admitted to this 18 bed unit. Since some of their findings have been published,¹⁻³ I won't review their results. I simply cite this as one instance of how modern data processing technology can assist the practice of medicine. We can stratify patients according to their presenting symptoms and findings and learn what therapeutic interventions were associated with beneficial outcomes and which were not. We can develop the probabilities of outcome that are needed for decision analyses, rather than depend for those critical fractions at branching point on educated guesses. In fact, we can rewrite the text books of Medicine — and the larger the data base the better that book will be. I even suspect that, when we apply these methodologies to the management of our elderly patients, the careful determination of what is beneficial and, therefore appropriate, will do much to answer the ethical questions raised earlier. If we can assess what helps and what doesn't and be able to attach good

probabilities to each, it would be a large step forward in the appropriate medical care for all, including our aging population. I am assuming that physicians and the public will be willing to make decisions according to the probabilities of favorable outcome realizing that, as with any application of statistics, we may miss a few. We are only beginning to sense the power that modern data processing technology can bring to bear on improving medical practice. It will be an exciting next decade for us to see this potential realized.

Role of Preventive Medicine

Finally, I would urge that we engage as physicians, much more than we do, in preventive medicine and health promotion. I should feel much more comfortable about the future of our profession if we were balancing our concentration on curative medicine with more effort toward preventing disease and disability. I sense that the public expects this of us.

What is the record for preventive medical practices? We have done well in immunization against certain infectious diseases to complement what sanitation and safe water and food supplies have accomplished. The eradication of small pox is a singular medical triumph. In addition to being a historical scourge of medieval Europe, an epidemic of small pox during the early 1800s swept Boston killing one out of every three persons attacked by the disease. Today we can't even imagine a disaster of such proportion!

The annual check up has been controversial so far as its preventive medical value. Most studies indicate a value for only a very limited number of procedures at specified stages of life when risks are highest. The Breslow-Sommers recommendations are among the most extensive;⁴ other studies⁵ are more conservative in their estimate of what the periodic examination may offer. In preventive dentistry the introduction of fluoridation of water supplies is acclaimed a major success by dental authorities.

As a society we are slowly mobilizing to protect our environment and health from man-made pollutions. The problems of determining what is toxic and at what level, the monitoring of the environment, and the costs are formidable. It is not clear that our efforts are keeping up with the rate of pollution — the fiscal rewards of polluting to the polluters are enormous. Increasing populations accelerate the rate that the earth's resources are consumed and converted to pollution. This situation is likely only to get worse barring some cataclysmic disaster such as a nu-

clear war — but destroying civilization, as we know it, to reduce the world's population can hardly be regarded as preventive medicine.

But these are global issues and not what I intend to dwell upon. They involve politics and social and economic factors more than medical. What I wish briefly to address is how little we yet know about how to stay healthy. We know at least some of the negatives — don't smoke, don't use drugs, don't drink in excess, don't drive too fast — but positive measures to assure continued good health are little known. Myriads of fads are practiced, but little evidence supports their value.

Nutritional Factors

Even when it comes to something as fundamental to health as nutrition, we find even the experts in open disagreement. The clash between the Food and Nutrition Board of the National Research Council and the policy statements of the American Heart Association over recommended levels of fats and cholesterol in the diet is an example. In a society in which heart disease is the major cause of death and in which some 100,000 coronary bypass operations were performed last year at a cost of some 2 billion dollars, one would think that the role of dietary factors in the causation of atherosclerosis would be defined by now. There is much epidemiologic evidence to implicate animal fat as a factor in heart disease. Data on incidence of heart disease deaths and fat intake for a number of countries show a positive correlation.⁶ Also, there is a direct relationship between the consumption of animal protein and per capita income. It is perhaps not surprising, therefore, that it is the affluent countries in which heart disease is most prevalent. Clearly, heart disease is one of the luxuries of our affluent cultures. But such data show only association, not cause and effect. Many other epidemiologic studies — too many to review here — show similar associations between dietary factors, smoking, hypertension, hypercholesterolemia, stress, and physical activity on the incidence of heart attacks. Yet rigorous proof is still lacking as to the effect of reducing cardiovascular risk factors on the development or reversal of atherosclerotic disease in the individual. Does it really affect the course of cardiovascular disease in a specific patient if he reduces intake of cholesterol, animal fats, and proteins; exercises; and reduces stress? Are all those joggers and vegan advocates participating in just another passing fad, or are they doing their heart and arteries a real favor?

Large multicenter studies that have attempted to examine this critical preventive medicine issue lose their credibility over problems of compliance. When reductions in serum cholesterol of only 10 to 15 per cent are achieved, when we know that much larger reductions are possible if strict diets are enforced, it makes one wonder if compliance rather than dietary modification is being tested in such large studies. It seems that the time has come when an entirely different approach to this problem should be tried. Methods of noninvasive cardiovascular evaluation are being perfected to the point where objective changes in the heart and large vessels should be detectable. By obtaining baseline measurements on individuals with risk factors or early definable atherosclerotic disease before entry into a program to modify risk factors, with subsequent periodic follow-up studies and close check on compliance, definitive answers may be forthcoming in a 5 to 10 year study. Of course the problem with a comparable control group will always be present, but this doesn't seem insurmountable. Perhaps we may learn something regarding means of motivating individuals toward habits of healthful living in the course of such studies.

If in addition to our reactive role in relieving suffering and curing disease we take the initiative to determine those positive factors that will promote health we will be serving society and our good name, as well.

Limits to Life Expectancy

Survival curves show impressive changes in life expectancy since 1900. Life expectancy has improved greatly, but the maximum life span has not increased at all. Although the survival curve is becoming "rectangularized" and more individuals are attaining old age, the biologic limit of life holds fixed at some 85 ± 10 years. No society with exceptional longevity has been authenticated, although I have been guilty in the past of contributing to the mythology. Especially revealing was the small village of Vilcabamba in the Andes of southern Ecuador. This community is Catholic, and therefore baptismal records are available in the village church. On my first visit there in 1970 I was introduced to Miguel Carpio and told he was 122 years old. As my Ecuadorian physician hosts claimed to have validated Carpio's age from the Church records, I did not question his 122 years. Four years later I returned to Vilcabamba. This time I was told that Miguel Carpio was 134 years old. Even I became

suspicious! Subsequent careful studies by Mazess and Forman⁷ revealed that there were no centenarians in this community, despite the statistics of the Equadorian Institute of Census, 1972, which claimed 9 centenarians among the population of 829 persons. Carpio died a few years ago at the age of 93. When Mazess and Forman plotted the stated ages against the actual ages documented from church and civil records, they observed that above the age of 70 there is an increasing propensity for exaggeration of age. A person claiming to be 100 would prove to be in his or her early 80s. In the other two areas of purported longevity, the Caucasus in Southern Russia and the state of Hunza at the tip of West Pakistan, there are no written birth records, and almost certainly the extremes of age are exaggerated. I met Quaff Lasouria from Abkhasia in the Caucasus, who claimed 141 years when I saw her in 1972. She was recently featured on the CBS television program "60 minutes," but, though her story sounded to me to be consistent, from our experience in Vilcabamba I am certain that her age is exaggerated. Although there is now a chemical method of determining the age of human subjects,⁸ it has not been applied to individuals of purported extreme longevity. The longest living person whose age has been documented or nearly so was a Japanese male who was born in 1865 and died in 1980 at the age of 115, but the first census in Japan was in 1871, when he was recorded as six years old. Thus, even this record lacks full documentation. His age thus represents the extreme tail of the survival curve. According to census figures in developed countries only one in some 30,000 persons will attain the age of 100. Unless there is some very major, and as yet unprecedented, breakthrough in our understanding and control of the aging process, an extension of our life span is not likely to occur. Thus we are each faced with a mortality that optimally will occur at age 85 ± 10 years according to James Fries in a recent thoughtful essay on this subject.⁹

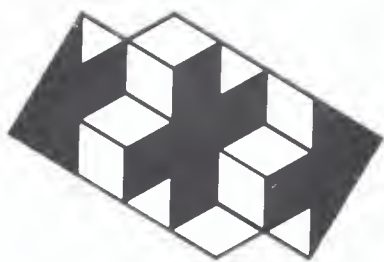
Conclusion

What then should be the role of Medicine? I think, as Fries has indicated, that we may reduce the morbidity that is so commonly associated with old age through a better understanding of health and its promotion by avoidance of negative factors and emphasis on the positive. I met an elderly shepherd in the Caucasus who followed the custom of taking his goats to the high Alpine pastures for four months each spring and summer. He was said to be 116 years old; from my interview I believe his age was more likely 90. But whether 90 or more — or even 80, or 70 — he chases his flock of goats from dawn to dusk over the steep Alpine slopes. I think you will agree that he must be physically fit. This is the state of health and fitness we should seek for everyone. I think through preventive medicine much can be done toward such a goal.

References

- ¹ Thibault GE, Mulley AG, Barnett GO, et al: Medical intensive care: indications, interventions, and outcomes. *N Engl J Med* 302(17):938-942, 24 Apr 80.
- ² Mulley AG, Thibault GE, Hughes RA, et al: The course of patients with suspected myocardial infarction. The identification of low-risk patients for early transfer from intensive care. *N Engl J Med* 302(17):943-948, 24 Apr 80.
- ³ Singer DE, Mulley AG, Thibault GE, et al: Unexpected readmissions to the coronary-case unit during recovery from acute myocardial infarction. *N Engl J Med* 304(11):625-629, 12 Mar 81.
- ⁴ Breslow L, Sommers AR: The lifetime health-monitoring program. A practical approach to preventive medicine. *N Engl J Med* 296:601-608, 17 Mar 77.
- ⁵ Spitzer WO, Bayne RD, Charron KC, et al: Task force report: The periodic health examination. *Can Med Assoc J* 121(9):1193-1254, 3 Nov 79.
- ⁶ Yerushalmy J, Hilleboe HE: Fat in the diet and mortality from heart disease; a methodologic note. *New York State J Med* 57(4):2343-2354, 15 Jul 57.
- ⁷ Mazess RB, Forman SH: Longevity and age exaggeration in Vilcabamba, Ecuador. *J Gerontol* 34(1):94-98, Jan 79.
- ⁸ Helfman PM, Bada JL: Aspartic acid racemization in tooth enamel from living humans. *Proc Nat Acad Sci USA* 72(8):2891-2894, Aug 75.
- ⁹ Fries JF: Aging, natural death, and the compression of morbidity. *N Engl J Med* 303(3):130-135, 17 Jul 80.

Massachusetts General Hospital
Boston, MA 02114



Blackstone Valley Surgicare

Easier for you, nicer for them.

- Same-Day Surgery facilities for general surgeons, gynecologists, plastic surgeons, ophthalmologists, oral surgeons, otolaryngologists, orthopedists
- Managed by physicians with the doctor in mind
- Open staff
- General anesthesia
- Block bookings
- Modern, pleasant environment
- Nursing staff exclusively oriented to the ambulatory surgical patient
- Easy access from Route 95; plenty of parking
- Full Blue Cross and commercial insurance coverage
- Accredited, National Society for Free Standing Ambulatory Surgical Care

Call 728-3800 for more information and bookings.

Blackstone Valley Surgicare, Inc.
333 School Street
Pawtucket, Rhode Island

Aging in the 80s: The Promise of the Partnership

The Gerontology Center Will Integrate the Resources of the Brown Medical Program and Several Other Agencies

John W. McClain, PhD
David S. Greer, MD
Donald L. Spence, PhD

We are growing older. There are more than 25 million Americans over the age of 64. The average life expectancy at birth has increased by approximately 30 years since the turn of the century. Further, the *aged* are getting older. Whereas in 1980 62 per cent of the older population was between the ages of 65 and 74, by the year 2000 it is projected that only 55 per cent will be in this category, while those 75 and over will have increased from 38 to 45 per cent of the elderly population.¹

New England's population of persons over 65 years is expected to increase by 300,000 between now and the turn of the century. On the basis of current rates of incidence, this will mean in the year 2000, 128,000 cases of arthritis, 100,000 cases of hypertension, 89,000 hearing impaired, 64,000 sight impaired, 22,000 cases of diabetes,

From the Southeastern New England Long Term Gerontology Center, Brown University, Providence, Rhode Island.

John W. McClain, PhD, Associate Director, Southeastern New England Long Term Care Gerontology Center, Providence, Rhode Island.

David S. Greer, MD, Dean of Medicine, Division of Biology and Medicine, Brown University, Providence, Rhode Island.

Donald L. Spence, PhD, Director of Education and Training, Southeastern New England Long Term Care Gerontology Center, Providence, Rhode Island.

and somewhere between 15 and 45 thousand individuals with senile dementia.²

The health needs of the aged now consume almost half of the funds expended by federal Medicare and Medicaid. To contain costs while maintaining quality, the location of the delivery of health services is shifting from institutions to the community. Service agencies and the institutions which train health professionals must modify their methods and goals to meet changing service demands. This will not be easy and will require the best efforts of all of us if we as a society are to maximize our effectiveness rather than waste time and energy in competition for declining resources.

Since October 1980, Brown University has served as the administrative base for one of the nine Long Term Care Gerontology Centers funded by the Administration on Aging. The Southeastern New England Long Term Care Gerontology Center, which is patterned after the Brown model for medical education, has recently evolved into a New England regional center for long term care program coordination. The regional responsibility provides us with the challenge as well as the opportunity to stimulate the development of a regional partnership of academicians, service providers, consumers, and public policy makers for effective problem-solving.

The intent of this paper is to outline the promise of the partnership. It is our contention that an effective partnership begins with understanding.

Therefore, it is our intention to help you understand us. First, we want to share with you some facts about the organization of the Brown University Program in Medicine. Second, we want to describe our concept of a Long Term Care Gerontology Center based upon this organizational model. Finally, we shall turn to the potential impact of our Center model on long term care scholarship and service delivery.

The Program in Medicine

It is important for the reader to be mindful that Brown University does not own or operate any clinical facilities except the University Health Service. The present agreements with existing hospitals and agencies are the means by which we fulfill our clinical education obligations. Eight community hospitals in the metropolitan Providence area have committed themselves to the development of a cadre of full-time faculty who are jointly appointed by the University and the hospital, and who provide leadership in developing and maintaining the hospital service programs as well as the academic programs of the University. All of our core clinical clerkships, except Community Health, are taught entirely under the direct supervision of this affiliated hospital faculty. Because these affiliated faculty members assume full academic responsibilities, including the teaching of undergraduate and graduate students, they represent a true extension of the campus.

There is another, outer ring of associated institutions. These institutions may or may not have full-time physicians on their staffs. Their faculty commitment consists of the designation of a person to supervise the education of Brown University students in their institutions. In general, teaching in these sites is limited to clinical electives, insofar as medical students are concerned.

These associated institutions are widely divergent in mission, geography, and relationship to the University. Included in this group in the Providence metropolitan area is the entire state (public) hospital system, Rhode Island Health Services Research, Inc. (SEARCH) — a Providence based health data and research organization, Planned Parenthood of Rhode Island, the Meeting Street School for handicapped children, the Jewish Home for the Aged, Rhode Island Group Health Association (RIGHA) — a health maintenance organization, and the Providence Mental Health Center. Outside metropolitan Providence, our associations include: Charlton Memorial Hospital in Fall River, Massachusetts;

Blue Hill Hospital in Blue Hill, Maine; the Indian Health Service Hospital in Keams Canyon, Arizona; the Frontier Nursing Service in Frankfort, Kentucky; the Mississippi Family Health Center in Jackson, Mississippi; the Day Kimball Hospital in Putnam, Connecticut; and Sergipe Hospital in Recife, Brazil, among others.

We maintain this extensive network of associated institutions because we believe that students should be exposed to clinical education beyond traditional tertiary care teaching hospitals. Our goals include assistance to community agencies in the provision of quality medical care as well as exposure of students to views of clinical service which are not likely to be possible in medical center hospitals.

We believe that full time academic physicians have a responsibility to themselves, and to society as a whole, to engage in scholarly research so that our knowledge of biological processes and disease will expand. However, we also believe that no community hospital which is primarily engaged in patient care can independently assemble the depth of full-time faculty or provide the space and support staff needed to maintain truly a comprehensive academic program.

We believe, further, that the academic establishment should not be isolated from the practitioners in the community or from a broad array of health problems in diverse institutional settings. Finally, our "inclusive" approach allows us to contribute to quality care for a broad constituency of patients and clients. Health care has improved in Rhode Island in the last decade and we are proud of the part that Brown University has played in that improvement.

The Long Term Care Gerontology Center

The impact of the aging population on medical education and the delivery of health care have now assumed a critical role in the development of public policy. The Association of American Medical Colleges (AAMC) is currently conducting a year-long project which will provide guidelines for curriculum development in geriatric medicine. The AAMC initiative is similar to the one in 1975 which resulted in an increased public policy emphasis on primary care and a desire by United States medical schools to address specifically issues relating to the interface between primary care and medical education. A similar environment now exists for productive discussions on the ways in which information on the geriatric population and their special needs can be integrated into the medical education system.

This is necessary to assure the relevancy and adequacy of the professional preparation provided to the physicians who will treat this growing population in the years to come.

In our own Long Term Care program we are currently conducting an extensive review of existing educational resources and opportunities so as to assess our ability to incorporate pertinent material on geriatrics into our curricula. We are committed to the development of a program which will not only prepare physicians to treat this population but also be at the cutting edge of the new knowledge required to address the health care problems they present. To support research and to provide teaching opportunities in geriatrics, we are extending our relationships to include the long term care system. This has meant the addition of nursing and allied health professionals in the development of our Center. What has resulted has been an extension of the Program in Medicine model into a new area of health care.

The Southeastern New England Long Term Care Gerontology Center is unique in that it is a Center without walls. It has reached out into the community to identify the resources needed to accomplish its objectives. These community resources have been integrated into the Center as part of its organizational structure. Hence, the Center organizational structure includes an *Academic Advisory Committee* composed of representatives of five regional institutions — the University of Rhode Island, Rhode Island College, Southeastern Massachusetts University, and Bristol Community College in Massachusetts — which, as co-founders of the Center, provide a broad academic base for scholarly investigation. A *Community Advisory Committee*, made up of representatives from the public sector and a network of service delivery agencies, links the Center with key policy makers and service providers in long term care.

The broad mission of our Center is to provide a forum for the free flow of ideas. We are engaged in linking the creativity and resourcefulness of the policy maker and service provider with the creativity and resourcefulness of the academician. Toward that end, we have translated our broad mission into six program areas: 1) education and training, 2) research and evaluation, 3) public information, 4) technical assistance, 5) model service development and 6) community minority relations. We feel that these program areas address the major concerns of our constituency.

Education and Training

Educators and trainers who are responsible for developing a wide range of professional talent are faced with the challenge of establishing quality programs which are relevant to those who must organize and provide service to the elderly. The gradual societal recognition of a growing elderly population with increased needs for long term care services has stimulated a reevaluation of the historical strategies which have generally targeted manpower away from this area. New systems of community care, which creatively utilize individual care givers or effectively organize them into service delivery teams, must be explored. Education and training, both in the classroom and field, must lead to the development of trained personnel in long term care who combine professional competence with humanitarian concern.

Regarding medical education, we have established a medical curriculum study group composed of campus-based and community-based faculty whose charge is to suggest methodologies for the inclusion of long term care gerontology in the mainstream of clinical and didactic education. In addition, at least one elective clerkship has been established to familiarize medical students with the long term care needs of those elders who reside in institutions. Recognizing that long term care services are also community-based, we intend to establish single discipline as well as multidisciplinary training for health and social service professionals outside of the institutional setting. Therefore, our Center model, through its networking in the broader community, offers the potential for an attractive array of educational opportunities for medical students, other graduate and undergraduate students, residents, fellows, and practicing professionals.

Research and Evaluation

The Center must foster an environment which stimulates and expands the capacities of those who create and disseminate knowledge. Scholarly investigators must be encouraged to commit their talents to the field of long term care gerontology so as to elevate society's understanding of those physical, social, and psychological barriers which prevent the elder from maintaining a more independent lifestyle. It is our hope that by linking investigators from various disciplines we shall establish the basis for creative problem-solving.

Center faculty are actively engaged in research, and the Center, through its competitive discretionary fund, has awarded over twenty "seed"

grants to participating faculty engaged in biomedical, sociological, and behavioral research.

Recognizing that organizational umbrellas are needed to coordinate diverse concerns in long term care investigation the Center is also investigating the potential for the development of models such as the teaching nursing home and the geriatric diagnostic center which not only provide the stimulus for collaborative research but offer numerous education and training opportunities. The models that we envision form a network providing a continuum of care in which there is an interface between the institution and the community.

Public Information

We view the development and dissemination of information as a key element of a unified and viable system for long term care. It is our goal to participate in the development of a system for information sharing which will rapidly inform our regional constituency of new developments. Often we pursue our ideas in isolation and, because of this isolation, risk unnecessary and costly duplication of effort. What is needed is a unified system for collecting, organizing, and disseminating information that will reach the campuses, community agencies, state houses, and homes throughout our New England region.

Recently, the Center has sponsored seminars on alcoholism among the elderly and new concepts of housing for aged or disabled persons or the disabled aged. In addition, the Center has a regular educational television program on television station WJAR, Ch. 10 in Providence, called "These Are the Days." A newsletter is distributed throughout the region.

Technical Assistance

The partnership that we are envisioning will have broad implications for regionwide resource sharing and technical assistance. The dialogue among policy makers, service providers, and academics resulting from our Center model has produced blueprints for innovation which capitalize on the richness of our collective talent and experience. We believe that similar models of cooperation can be developed throughout our region and it is our intent to stimulate the development of such local models as the foundation of a regional system of technical assistance.

The Center is serving as technical consultant to the State Department of Social and Rehabilitative Services in Rhode Island to develop a Long Term Care System for the State. Client assessment in-

struments, data systems, and case management organization are components of this program, which will be used for policy development and management of the Medicaid program in Rhode Island.

Model Service Development

Consistent with the need for manpower development is the deployment of that manpower in a more rational community-based service system. The increased demand for health and social services in the face of rapidly shifting population demographics will add considerable pressure to the presently fragmented system, already seen as over-taxed. If we are realistically to meet the growing demand, we must boldly pursue new strategies for service delivery and undertake the systematic analysis of the impact of these strategies on providers, consumers, and third-party payers. Our experiences have shown us that model service development has a broad impact on the issues of licensure, professional regulation, and reimbursement for service and serves as the data base upon which broad policy decisions can be made.

The Center has organized, through the Brown University Section of Family Medicine, a pilot Geriatric Nurse Practitioner program in the Attleboros in Massachusetts. This program is being funded with assistance from the Bristol County (Massachusetts) Home Care Corporation. The nurse practitioner program will attempt to demonstrate how mid-level practitioners can expand services to the elderly in their homes and in nursing homes in collaboration with practicing physicians and home care agencies.

Community Relations

Our Center model, like our New England region, is broadly representative of many racial, ethnic, and social groups. This rich diversity has historically graced our region. Consistent with our heritage and our mission, we have launched extensive investigations in order better to understand the quality of life of minority elderly. Our strategy has been to integrate minority concerns within the mainstream of Center activity while recognizing the cultural differences which have an impact on the well-being of minority elders. The Center is presently conducting a seven cities needs assessment of formal and informal supports for minority elderly. Program development can then proceed on a rational basis.

We are also concerned about the dearth of

minority investigators and practitioners whose scholarly and service delivery activities will help to broaden our understanding of the long term care concerns of minority elders and the minority communities at large. Toward that end, we are actively engaged in attracting minority students to the field of long term care gerontology. It is envisioned that these efforts will have broad implications for all health and social service professionals.

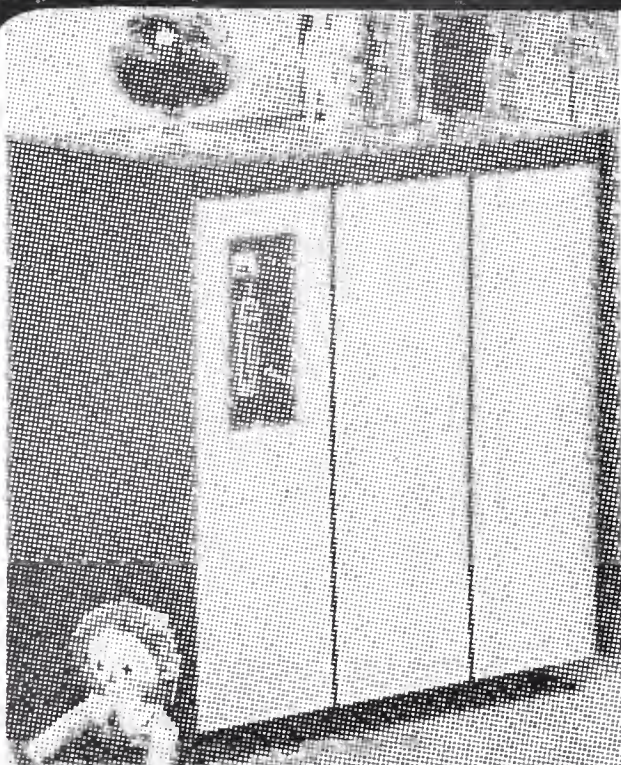
In broad brush strokes, we have presented our model from its origins within Brown University to its implications for a regionwide partnership in

long term care. We feel that our model represents a timely response to the challenges of the 80s and beyond.

References

- ¹ US Department of Commerce, Bureau of the Census: Age, sex, race and Spanish origin of the population by regions, divisions and states 1980, in 1980 Census of the Population, Supplementary Reports, Washington, US Government Printing Office, 1981.
- ² Prevalence of selected impairments, US 1977, in Vital and Health Statistics Series 10, Hyattsville, Maryland, National Center for Health Statistics, 1981.

Brown University, Box G
Providence, RI 02912



Briox.

the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166

HEALTH HAVENS NURSING HOME

East Providence

1983 CME Cruise/Conferences on Legal-Medical Issues



APPROVED FOR
18-24 CME CREDITS
CATEGORY 1
By the Suffolk Academy
of Medicine

The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act — Public Law 94-445 effective 1/1/77.

- | | |
|--|--|
| * January 8-15 (from
Ft. Lauderdale, FL)
7 Day Caribbean — | * July 27-Aug 6 (from
Ft. Lauderdale, FL)
10 day Caribbean — |
| * April 2-9 (from Los
Angeles, CA)
7 Day Mexican Riviera | Aug. 20 — Sept. 3
(from Venice, Italy)
14 day Mediterranean |
| * July 2-16 (from San
Francisco, CA)
14 day Alaska/Canada | |

***FLY ROUNDTRIP FREE**

EXCELLENT GROUP FARES — FINEST SHIPS

The number of participants in each conference is limited.
Early registration is advised.

For color brochure
and additional
information contact:

International Conferences
189 Lodge Ave.
Huntington Station, N.Y. 11746
Phone (516) 549-0869

Rhode Island Medical Journal

October 1982
Volume 65, Number 10

Auxiliary History
see pages 395 and 425

LIBRARY
U.C. SAN FRANCISCO
NOV 17 1982



CONTRIBUTIONS

- 411 Time-Limited Action-Oriented Psychotherapy in a General Hospital with Focus on Separation:
Follow-up of Twelve Patients
- 419 Overview on the Competency to Stand Trial and Determination of Criminal Responsibility
- 425 Women's Auxiliary to the Rhode Island Medical Society

387 NEWSLETTER

395 EDITORIALS

397 RADIOGRAPHIC CASE OF THE MONTH

399 REPORTS OF THE HOUSE OF DELEGATES

When your overweight patients seek your help with a weight reduction plan...

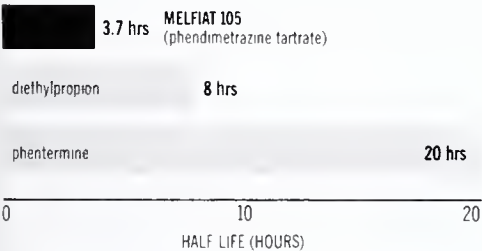


The benefits will outweigh the risks when you prescribe MELFIAT® 105

Because MELFIAT 105 effectively controls appetite.
MELFIAT 105 (phendimetrazine tartrate), an effective anorexiant, provides the appetite control overweight patients often need to begin a successful program of weight reduction. And the positive results of initial short-term therapy with MELFIAT 105 can help motivate them to a lifelong commitment of weight control.

Because MELFIAT 105 has a 3.7 hour half-life and low abuse potential.
Therapeutic efficacy combined with a short half-life and minimal abuse potential make MELFIAT 105 the drug of choice in the treatment of exogenous obesity. Because MELFIAT 105 has a short half-life, it minimizes drug accumulation and helps to eliminate such effects as disturbed sleep patterns. And, because MELFIAT 105 has significantly lower abuse potential than the amphetamines¹, there's less risk to your patients. According to a NIDA (National Institute on Drug Abuse) report, phendimetrazine appears to be the least abused anorexiant when compared to phentermine and diethylpropion¹.

Half-life comparison of MELFIAT 105 and other anorexiant²



MELFIAT® 105

UNICELLES® III

(phendimetrazine tartrate)

Sustained-Release Capsules 105 mg

Because MELFIAT 105 is in a sustained-release capsule.
MELFIAT 105 provides your patients with continuous drug delivery for appetite control that lasts throughout the day and helps to eliminate compulsive snacking and overeating at meals. In addition, the sustained-release capsule form maintains more constant blood levels of MELFIAT 105... without peaks and valleys.

Because MELFIAT 105 offers convenient, once-a-day dosage.
MELFIAT 105 is available in a convenient capsule containing 105 mg. The simple morning dosage regimen is designed to encourage compliance, minimizing the chance of missed doses and assuring optimum therapeutic results.

Because MELFIAT 105 is from Reid-Provident Laboratories, Inc.
Reid-Provident has the highest standards of quality to assure that only the finest products reach you. An advisory board of research scientists, physicians, pharmacists, and other technical staff continually review existing products and new product proposals to make sure that the latest pharmaceutical technology is used in their design and manufacture. That's because Reid-Provident is committed to you and your patients.

For more information please write to Reid-Provident Laboratories, Inc.
640 Tenth Street, N.W.
Atlanta, Georgia 30318

References: 1. Sheu YS, Ferguson JA, Cooper JR: *Evaluation of the Abuse Liability of Diethylpropion, Phendimetrazine, and Phentermine*, unclassified document ADAMHA, HHS, Office of Medical and Professional Affairs, NIDA, 1980.
2. Douglas JG, Munro JF: The role of drugs in the treatment of obesity, *Drugs* 21:362-373, 1981.

MELFIAT® 105 UNICELLES® III
(phendimetrazine tartrate) 105 mg Sustained-Release Capsules

INDICATIONS AND USAGE: Melfiat® 105 (phendimetrazine tartrate) is indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below

CONTRAINDICATIONS: Advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

USAGE IN PREGNANCY: The safety of phendimetrazine tartrate in pregnancy and lactation has not been established. Therefore, phendimetrazine tartrate should not be taken by women who are or may become pregnant.

USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure.

Central Nervous System: Overstimulation, restlessness, dizziness, insomnia, euphoria, dysphoria, tremor, headache, rarely psychotic episodes at recommended doses.

Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, other gastrointestinal disturbances.

Allergic: Urticaria.

Endocrine: Impotence, changes in libido.

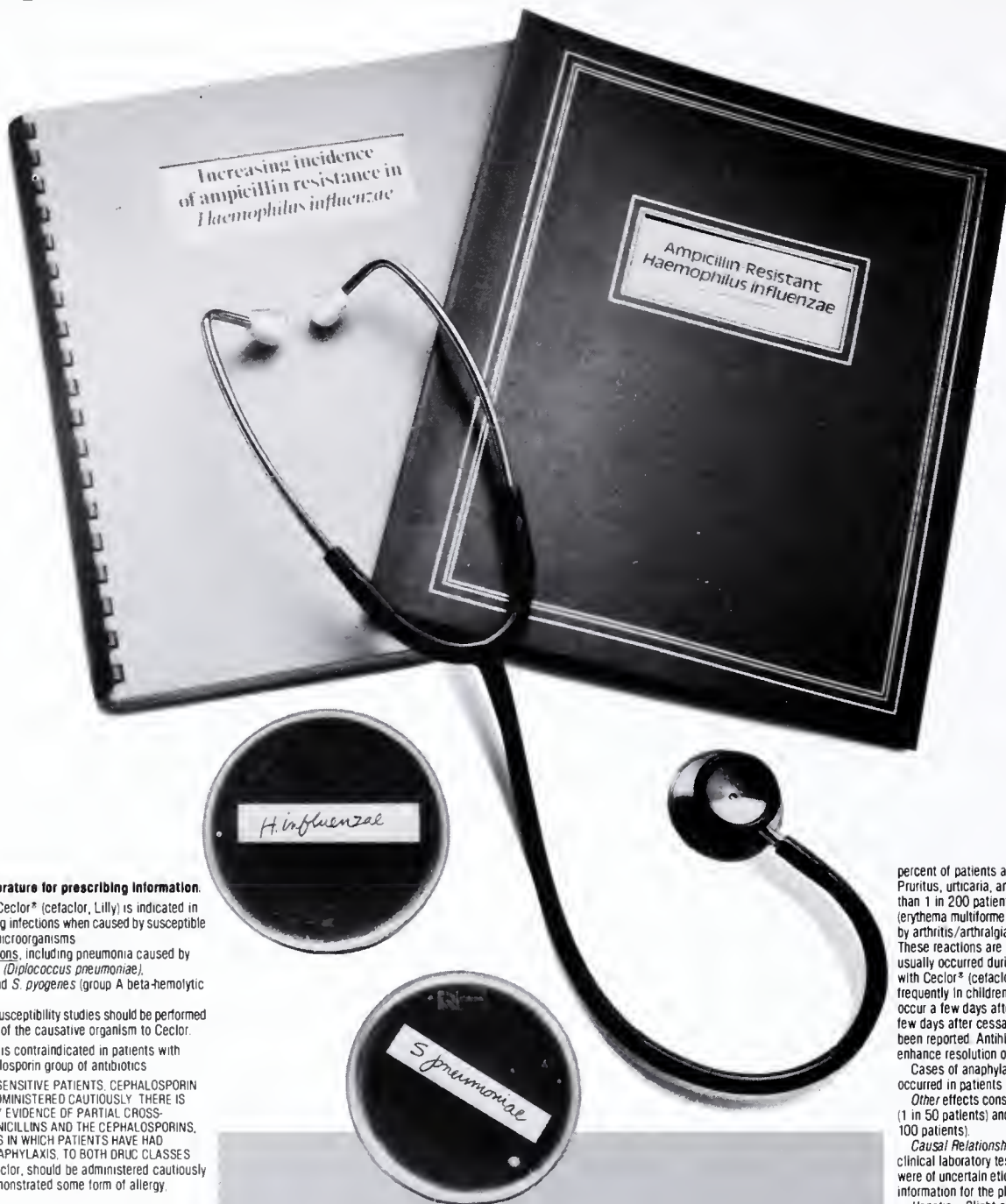
OVERDOSAGE: Manifestations of acute overdosage with phendimetrazine tartrate include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma. Management of acute phendimetrazine tartrate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Acidification of the urine increases phendimetrazine tartrate excretion. Intravenous phentolamine (Regitine) has been suggested for possible acute, severe hypertension, if this complicates phendimetrazine tartrate overdosage.

DOSAGE AND ADMINISTRATION: Since Melfiat® 105 (phendimetrazine tartrate) 105 mg is a sustained release dosage form, limit to one sustained-release capsule in the morning. Melfiat® 105 (phendimetrazine tartrate) is not recommended for use in children under 12 years of age.

HOW SUPPLIED: Each orange and clear sustained-release capsule contains 105 mg phendimetrazine tartrate in bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary

Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefactor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefactor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefactor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefactor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.⁷

Ceclor®

cefactor

Pulvules®, 250 and 500 mg

percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthritis, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor* (cefactor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [100281R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975
2. Antimicrob. Agents Chemother., 11:470, 1977
3. Antimicrob. Agents Chemother., 13:584, 1978
4. Antimicrob. Agents Chemother., 12:490, 1977
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11:880. Washington, D.C.: American Society for Microbiology, 1978
6. Antimicrob. Agents Chemother., 13:861, 1978
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

Rhode Island Medical Journal

October 1982
Volume 65, Number 10

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Maurice M. Albala, MD

Paul Calabresi, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Melvin D. Hoffman, MD
President

Leonard S. Staudinger, MD
Vice President

Milton W. Hamolsky, MD
Secretary

Charles P. Shoemaker, Jr., MD
President-Elect

Kenneth E. Liffmann, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Elie J. Cohen, MD
Newport County Medical Society

Constantine G. Demopoulos, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society



Seminar

"PANCREATIC AND BILIARY TREE DISORDERS AND THEIR TREATMENT"

**December 2, 1982
8:30 a.m.-12:00 noon
George Building Auditorium
Rhode Island Hospital
Providence, Rhode Island**

Guest Speakers:

Nicholas A. Califano, M.D.

Clinical Assistant Professor, Brown University
Associate Physician, Div. of Gastroenterology, RIH

Edward R. Feller, M.D.

Clinical Assistant Professor, Brown University
Assistant Physician, Dept. of Medicine, RIH

Michael D. Levitt, M.D.

Assoc. Chief of Staff for Research
Veterans Administration Hospital,
Minneapolis, MN

Peter R. Meuller, M.D.

Assistant Professor of Radiology
Harvard Medical School and
Mass. General Hospital

Andrew L. Warshaw, M.D.

Assoc. Professor of Surgery,
Harvard Medical School
Assoc. Visiting Surgeon, Mass. General Hospital

TOPICS TO BE ANNOUNCED

This program is approved for four hours credit,
Category 1, American Medical Association, Physi-
cian's Recognition Award

Sponsored by

**Rhode Island Hospital
(Brown University Affiliate Hospital)
Department of Medical Education
and
Division of Gastroenterology**

Programs will be mailed to all RI
licensed physicians prior to the seminar.
For further information call (401) 277-5015
Contact person: Ida M. Ryder

Statement of Ownership, Management and Circulation

(Act of August 12, 1970: Section 3685, Title 39,
United States Code)

1. Title of Publication: *Rhode Island Medical Journal*
2. Date of Filing: September 30, 1982
3. Frequency of issue: *Monthly*
4. Location of known office of publication: 106 Francis St., Providence County, Rhode Island 02903
5. Location of headquarters or general business offices of the publishers: 106 Francis St., Providence, R.I. 02903
6. Names and addresses of publisher, editor and managing editor:
Publisher: Rhode Island Medical Society, 106 Francis St., Providence, R.I. 02903
Editor: Seebert J. Goldowsky, 106 Francis St., Providence, R.I. 02903
Managing Editor: Karen Challberg, 106 Francis St., Providence, R.I. 02903
7. *Owner:* Rhode Island Medical Society, 106 Francis St., Providence, R.I. 02903
8. Known bondholders, mortgagees, and other security holder owning 1 per cent or more of total amount of bonds, mortgages or other securities: None
9. For completion by nonprofit organizations authorized to mail at special rates
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during preceding 12 months
10. Extent and nature of circulation

	Average copies of issue during preceding 12 months	Actual no. of copies of published nearest to filing date
A. Total no. of copies (<i>Net press run</i>)	1,819	1,824
B. Paid circulation		
1. Sales through dealers and carriers, street vendors and counter sales		
1. Mail subscription	1,659	1,674
C. Total paid circulation	1,659	1,674
D. Free distribution by mail, carrier, or other means	10	10
E. Total distribution	1,669	1,684
F. Copies not distributed	154	140
G. Total	1,819	1,824
11. I certify that the statements made by me above are correct and complete.		Karen J. Challberg Managing Editor

TABLE OF CONTENTS



387	NEWSLETTER
395	EDITORIALS
397	RADIOGRAPHIC CASE OF THE MONTH
399	REPORTS OF THE HOUSE OF DELEGATES

CONTRIBUTIONS	
411	Time-Limited Action-Oriented Psychotherapy in a General Hospital with Focus on Separation: Follow-up of Twelve Patients <i>Short-Term Therapy Was Effective for Two-thirds of Those Selected Who Accepted the Treatment Contract</i> Elizabeth S. McCormick, MSW, ACSW Doris S. Warren, AB, ACSW Joseph M. Zucker, MD, APA
419	Overview on the Competency to Stand Trial and Determination of Criminal Responsibility <i>Psychiatrists Can Contribute to Safeguarding the Rights and Interests of Both the Individual and Society</i> Manuel E. Soria, MD
425	Women's Auxiliary to the Rhode Island Medical Society <i>A History of Thirty-five Years of Service</i> Maria-Elena Cassiet Charlotte E. Egan

COVER	
<i>Photo shows five auxiliary members at the Fire Hazard Hat Show sponsored by the auxiliary in 1957. See contribution page 425.</i>	

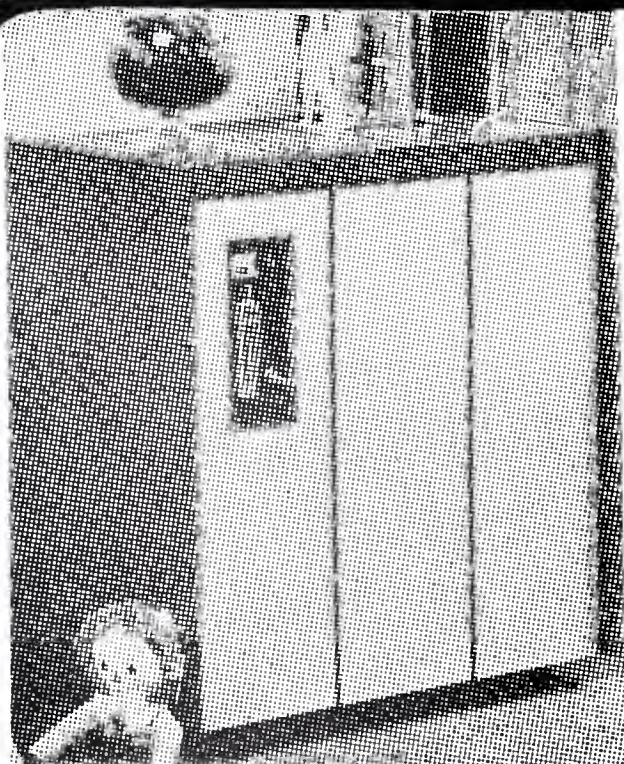
MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500



Briox.
the new, safe
concept in oxygen
for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

685 Park Ave.
Cranston
(401) 781-2166

PORTABLE X-RAY ULTRASOUND AND EKG SERVICE

METROPOLITAN MOBILE X-RAY

943-5800

883 Dyer Avenue, Cranston, R.I.
1370 Cranston Street, Cranston, R.I.
1334 Main Road, Tiverton, R.I.

Serving Rhode Island

Providing Diagnostic Ultrasound, X-ray
and EKG Services to:

- Nursing and Convalescent Homes
- Shut-ins and Private Home Patients
- Post Surgical Patients

Our service is certified by the R.I. Department of Health and DHHS. Reimbursement is provided by Medicare, R.I. BC/BS, Medical Assistance and all private insurers.

***Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

* Except studies requiring patients preparation such as gallbladder ultrasound.

HEALTH HAVENS NURSING HOME

East Providence

Medical Suites Available

— Cranston —

New Building
On Site Lab.
Approx. 1000 sq. ft.

\$11.50 per sq. ft. net

Exclusive Agents:

**F. A. DiPrete Realty
686 Reservoir Ave.
Cranston, R.I.
944-7700**

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, pass-words and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indis-
pensible element in Business Insurance . . . *Personal*
Service by an agent who knows you and your business.



Everyone's talking
about helping patients
understand their
prescription medication...

with your help,
Roche has been doing
something about it



WHAT IF

Roche Laboratories followed up the production and free distribution of 24 million copies of the Medication Education *WHAT IF Book* to patients via physicians, pharmacists and other health care professionals with a new series of booklets on important classes of medicines. The new booklets can be used with your patients to supplement your directions on

HOW TO

- Use these classes of medicines appropriately
- Ensure maximum benefits from their proper use
- Avoid risks that can follow their misuse

Check below for free supply of booklets desired; complete coupon and mail to Professional Services Department, Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110.

 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>
--	---	---	--	---	---



Roche Laboratories
Division of Hoffmann-LaRoche Inc.
Nutley, New Jersey 07110

NAME _____

STREET ADDRESS _____

CITY _____

STATE _____

ZIP _____

Medicines that matter from people who care

PRINTED IN U.S.A.

Newsletter

October 1982

Melvin D. Hoffman, MD, Editor
Karen Challberg, Associate Editor

RHODE ISLAND PHYSICIANS HOLD DOWN COSTS

According to a recent survey, from 1975 to 1980 in Rhode Island per capita out-of-pocket expenditures increased 15 per cent for hospitalizations, but decreased 42 per cent for physician visits and 19 per cent for dentist visits (cost adjusted for inflation).

(From "Results of the 1980 Rhode Island Health Interview Survey with Comparisons to 1972 and 1975," published by the Rhode Island Department of Health, 1982)

RIMS ENDORSES COST CONTAINMENT PROPOSALS FROM BLUE SHIELD

The Rhode Island Medical Society Council has endorsed recommendations to encourage performance of 91 procedures (out of 104 initially proposed by Blue Shield) in ambulatory care facilities rather than hospitals; and 99 procedures (out of 101 initially proposed by Blue Shield) in physicians' offices instead of free-standing ambulatory facilities or hospitals. The recommendations were made by the Ad Hoc Committee on Ambulatory Surgery Policy, chaired by J. Robert Bowen MD. Dr. Bowen's committee made its recommendations after survey of specialty society leaders.

TWO BIGGEST CONCERNS: SURPLUS OF DOCTORS AND SURFEIT OF REGULATIONS

A recently released survey by the Henry J. Kaiser Family Foundation revealed that most physicians see hard times ahead for their profession, with a surplus of doctors and a surfeit of regulations being the two developments most anticipated.

AMA SURVEY OF PHYSICIANS ON "COMPETITION IN MEDICINE"

A recent AMA survey examined attitudes of physicians on various aspects of competition in medicine. Among the findings from interviews with randomly selected physicians were that 64 per cent believe that the amount of competition in the health care system is "about right"; 21 per cent believe that it is "too high"; and 8 per cent believe that it is "too low."

(From "Survey and Opinion Briefs," published by the American Medical Association Group on Public and Federation Relations, Volume 1, Number 3, September 1982)

MEDICARE POLICY CHANGE ALLOWS WAIVING PATIENT SIGNATURES

Until recently the signature of the recipient (or a representative) of Medicare benefits was required on each claim submitted. Now, under new regulations, a physician or other supplier may obtain from the beneficiary and retain in the physician's file a lifetime authorization for the physician to submit assigned and unassigned claims on the beneficiary's behalf. This change simplifies the submission and processing of Part B claims.

The Rhode Island Medical Society contributed to initiation of discussions which led to this change through a resolution submitted to and voted by the American Medical Association House of Delegates in 1981.

NATIONWIDE ELECTRONIC MEDICAL INFORMATION SERVICE LAUNCHED

The AMA has granted a license to GTE Corporation to computerize AMA information resources. As a result current medical information will be available to physicians and other health providers "on-line" initially in Chicago, Washington, Houston and Los Angeles and ultimately nationwide.

PERIPATETICS

The first specially trained geriatrician in the state of Rhode Island, Marsha D. Fretwell MD, has joined the staff at Roger Williams General Hospital as head of the section of Geriatrics, Division of Primary Care in the Department of Medicine.

Ahmed S. Hassan MD of North Providence, Rhode Island has been elected to Fellowship in the American College of Physicians (ACP).

Seebert J. Goldowsky MD was recently admitted as a member to the Fifty Year Club of American Medicine, headquartered in Chicago, Illinois.

The American Orthopaedic Association recently elected James H. Herndon MD to lifetime, active membership.

William L. Grapentine MD has joined the psychiatric staff of the Emma Pendleton Bradley Hospital, East Providence, Rhode Island.

At a meeting earlier this year of the American Trauma Society F.A. Simeone MD presented the William Stone Lecture.

William Oh MD has been invited by the Department of Pediatrics and the McGill University-Montreal Children's Hospital Research Institute as the 1981-1982 Alton Goldbloom Memorial Lecturer.

Let's Hear from You on the Rhode Island Medical Journal.

What are your reactions to the Rhode Island Medical Journal? If it can be improved, tell us. If it's on-target, tell us. Look for a summary of reader responses to this survey in an upcoming issue. Thank you for your help in completing and returning this self-addressed postcard.

1. How useful do you find the Rhode Island Medical Journal?
___ very useful ___ quite useful ___ somewhat useful ___ not too useful ___ not at all useful
2. Check all that apply. The Rhode Island Medical Journal has been useful to me when I read:
___ Contributions ___ Editorials ___ Editor's Mailbox ___ Newsletter ___ President's Page
3. Please complete this sentence: The Rhode Island Medical Journal would be more useful if . . .

4. What two improvements would make the Rhode Island Medical Journal more interesting to you?
(1) _____ (2) _____
5. Please jot down below the three words or phrases which describe your general reactions to this issue of the Rhode Island Medical Journal.
(1) _____ (2) _____ (3) _____
6. Reader Identification Questions:
What is your age? _____ What is your specialty? _____
Check the adjectives that describe your institution/setting:
___ private office ___ hospital ___ HMO ___ other: _____

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 182-B PROVIDENCE, RI

POSTAGE WILL BE PAID BY ADDRESSEE

Rhode Island Medical Society

106 Francis Street

Providence, Rhode Island 02903 - 9990

NECESSARY
IF MAILED
IN THE
UNITED STATES

PRIVATE HEALTH SECTOR URGED TO CONTROL COSTS

In a speech delivered at the annual meeting of the American Academy of Orthopaedic Surgeons earlier this year, the Chairman and Chief Executive Officer of United Technologies Corporation, Henry J. Gray, said that the private sector will have to give cost considerations a higher priority than ever before: "Business should get involved with various segments of the health care delivery system at the local level....The medical profession must accept the fact that business is going to be involved in health care. Attention to the cost issue on a daily basis can have a lasting impact. This means being fully aware of the cost of various tests and procedures. It requires the skillful management of technology to improve productivity in the delivery of health care--in the doctor's office as well as in the hospital."

USE OR OVERUSE OF DIAGNOSTIC TESTS?

In a recent survey by The Robert Wood Johnson it was revealed that diagnostic tests are ordered in 39.7 per cent of patient encounters with general practitioners; this compares with 3.4 per cent of encounters in which exercise and/or diet are prescribed, and 12.1 per cent of encounters in which patient counseling is recorded.

"HOW WELL ARE YOU MINDING YOUR BUSINESS?"

An AMA publication lists books, pamphlets and cassette training tapes that can help physicians and office personnel organize the business side of medical practice--solo, group, or partnership. A copy may be obtained from the Department of Practice Management, American Medical Association, 535 North Dearborn Street, Chicago, IL 60610, (312) 751-6000.

"STARTING YOUR PRACTICE" WORKSHOP OCTOBER 29-30, 1982

The Rhode Island Medical Society will bring AMA Department of Practice Management speakers to Rhode Island for an intensive, two-day seminar for physicians planning to enter private practice. The course will deal with financial and legal concerns, personnel, patient relations, medical records, and other subjects. It is planned for October 29-30, 1982, at the Marriott Inn, Providence. For more information, contact RIMS, (401) 331-3207.

RIMS BLUE CROSS/BLUE SHIELD TO ADD MENTAL HEALTH RIDER

Subscribers to the RIMS Blue Cross/Blue Shield Plan group health insurance plan will have the added benefit of a mental health rider. The added coverage was proposed by the Mental Health Committee and approved by the Council at its meeting on August 31, 1982.

ILLEGAL SOLICITATION LETTER BY CHIROPRACTOR'S WIDOW

Mrs. Loretta J. McDevitt of Alhambra, California is circulating a form letter by bulk mail asking physicians to "help with at least five or ten dollars" so that she can "raise enough funds to start a home business." Mrs. McDevitt is not registered to solicit in Rhode Island and she is in violation of Rhode Island law.

MEDICAL STAFF MEETS TO DISCUSS RHODE ISLAND HOSPITAL PLANS

The medical staff of the Rhode Island Hospital met twice during September to discuss the institution's newly proposed missions and goals (see "President's Page," Rhode Island Medical Journal, September, 1982).

DUES INCREASE APPROVED BY COUNCIL AND HOUSE

At its meeting on August 31, 1982 the Council voted to recommend a \$50 dues increase for 1983. The recommendation was approved by the House of Delegates at its meeting on September 22, 1982.

PHYSICIAN OPPORTUNITIES NOTES:

The New Hampshire Division of Mental Health and Developmental Services is seeking a psychiatrist to fill the position of Medical Director. Contact: Ronald C. Andrews, Director, Division of Mental Health and Developmental Services, Hagen Drive, Concord, NH 03301, (603) 271-4681.

The Veterans Administration has established a Physician Placement Service in Randolph, Massachusetts, that enables physicians to apply for openings throughout the entire VA system by submitting a single application to the Physician Placement Service. Contact: VA Physician Placement Service, PO Box 719, Randolph, MA 02368, 1-800-343-8831.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn



In the treatment of insomnia

Good mornings start with restful nights.

Dalmane (*flurazepam HCl/Roche*)
patients fall asleep faster,
sleep longer and seldom awaken
with morning hangover.

Feeling well rested in the morning usually means having slept well the night before. And for insomniac patients receiving hypnotic therapy, a good morning also means awakening with few side effects from their medication. Many physicians choose Dalmane for their patients who suffer from insomnia for this very reason.

Aside from enabling patients to fall asleep more quickly and sleep longer, Dalmane seldom causes morning hangover. Most Dalmane patients feel alert and refreshed when they awaken. In 53 paired-night clinical studies comparing Dalmane and placebo in 2010 insomniac patients with a variety of secondary diagnoses, most Dalmane patients awakened more alert and refreshed, and less groggy and drowsy, than on nights when they had taken only placebo.¹ In a double-blind crossover study of

42 patients in private practice, approximately three times as many patients reported feeling refreshed and alert upon awakening after a night on Dalmane (flurazepam/Roche) compared to placebo nights.² This difference was highly significant ($p < 0.001$). And a retrospective study of 254 hospitalized patients who received Dalmane revealed only a 3.1% incidence of side effects.³

While residual effects from Dalmane therapy are infrequent, patients should be cautioned about drinking alcohol, driving or operating hazardous machinery after ingesting the drug.

Efficacy and safety in a broad range of patient types.

Over 2000 clinical trials involving more than 10,000 patients have shown that Dalmane patients fall asleep sooner, sleep longer and experience fewer nocturnal awakenings.⁴ The safety and efficacy of Dalmane have been demonstrated in medical and surgical hospitalized patients, in patients seen in office practice and in elderly patients.⁵⁻⁸ Since the risk of oversedation, dizziness, confu-

sion and/or ataxia increases with larger doses in the elderly, it is recommended that the dosage be limited to 15 mg.

Moreover, the efficacy and safety of Dalmane for the treatment of insomnia have been demonstrated in thousands of patients with a variety of primary medical conditions, including cardiovascular, neuropsychiatric, endocrine-metabolic, gastrointestinal, genitourinary, respiratory and musculoskeletal disorders.¹ Dalmane (flurazepam HCl/Roche) is contraindicated in pregnancy and in patients hypersensitive to the drug.

Avoids rebound insomnia upon discontinuation.

Rebound insomnia—a worsening of sleep beyond pretherapy levels after drug discontinuation—has been reported as a potential clinical problem with some hypnotics.^{9,10} However, this problem has not been reported with Dalmane. In eight out of eight sleep laboratory studies, there were no reports of rebound insomnia.¹¹ When you prescribe Dalmane, you can be confident of efficacy that enhances therapeutic progress. Your insomniac patients can be assured of a restful night, night after night—a good start for a good morning.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 3. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 4. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Meyer JA, Kurland KZ: *Milit Med* 138:471-474, Aug 1973. 6. Feller HL, Gibbons B: *Med Times* 101(8):130-135, Aug 1973. 7. Jacobson A et al: *Psychophysiology* 7:345, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 1978. 10. Kales A et al: *JAMA* 241:1692-1695, Apr 1979. 11. Monti JM: *Methods Find Exp Clin Pharmacol* 3(5):303-326, 1981.

For efficacy from the beginning to the end of therapy

15-mg/30-mg capsules



Dalmane®

flurazepam HCl/Roche

stands apart

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701



This ad is for all those who ever wonder where the money goes.

Her name is Dana. And, she was born with impaired hearing. But this year, thanks to the therapy she will receive at her local hearing and speech center, she'll be able to clearly hear the world around her for the first time.

If you're from her hometown, your gift to your local United Way went to help make this possible. And, it was also used to help thousands of others in your community who need help.

That's the way the United Way works. One gift, one time each year, helps millions of people all year round. Tens of thousands of different, good causes in communities all across the country. Including yours.



United Way

Thanks to you, it works. for ALL OF US.



A Public Service of This Magazine & The Advertising Council

Women's Auxiliary Then and Now

Thirty-five years of service to the health needs of Rhode Island is a proud record for the Women's Auxiliary to the Rhode Island Medical Society. But, what is the role of the Women's Auxiliary in the modern day? Is there room for volunteerism in the suburban life of weight-watcher classes, tennis, children's activities, gourmet cooking, and shopping malls? Is there room for volunteerism in health programs restricted by state and federal regulations, insurance clauses, labor unions, and licensing of specialists? The day of the funny Fire Hazard Hat Show (see cover) is far removed from us today. Yet, when we consider our greatest present concerns — crime and violence, the elderly, the neutron bomb, and chemical waste disposal — we wonder if there is not still a need and a place for a dedicated Auxiliary.

Appearing in this issue of the *Journal* (pages 425-428) is a history of the Women's Auxiliary since its founding in 1947. The variety of activities which the women volunteers have under-

taken during the years since certainly is impressive; the *Journal* is proud to permanently record the Auxiliary's story.

Today, auxiliary activities continue. The numbers of Women's Auxiliary members have diminished somewhat, although not so much in Rhode Island as in some other states. At the end of 1981 there were 2,098 dues paying members in New England. The distribution by state of this volunteer group was: Massachusetts 1,131, Connecticut 370, New Hampshire 347, Rhode Island 213, Maine 29, and Vermont 8.

We hope that these numbers will increase in the years ahead, and that with the growing number of female members of the medical profession, the auxiliary will come to include male spouses and no longer be exclusively a "women's" auxiliary.

On behalf of the Rhode Island Medical Society, the *Journal* congratulates the auxiliary in Rhode Island for its work.

The First Step

On November 2, 1982 the citizens of Rhode Island will be provided an opportunity to express themselves concerning their future security and destinies. This forthcoming election-day ballot will contain a proposition (number 10) which will allow Rhode Islanders to voice their views on a bilateral, verifiable freeze of nuclear weapons. The referendum states:

Should the President of the United States propose to the Soviet Union an immediate, mutual, and verifiable freeze on the production and deployment of nuclear weapons and of new systems designed primarily to deliver such weapons as a first step in reducing worldwide levels of nuclear armaments?

Passage of this proposition clearly does not bind our political leaders to an inflexibly specific course of action. If overwhelmingly endorsed by the electorate, however, it will become a persua-

sive force in encouraging them to pursue, with the USSR, an immediate, bilateral cessation in the manufacture and deployment of further nuclear armaments, under verifiable conditions. A nuclear weapons freeze is that critically necessary first step toward sincere, deliberate negotiations which will ultimately reduce the established arsenals of atomic weapons.

The wisdom, indeed the life-preserving necessity, of a nuclear weapons freeze has worldwide support. It has been acknowledged and endorsed by hundreds of town meetings, city councils, and state legislatures throughout our land. In Rhode Island, the congressional delegation, both Democratic and Republican, together with the state's religious leaders, unanimously endorse the nuclear weapons freeze referendum.

A nuclear freeze will result in a dramatic saving

for our nation, reducing our economically non-productive military budget by more than twenty billion dollars per year. But it is not this anticipated fiscal benefit which has prompted the pleas of our political, religious and moral leaders to proclaim their commitments to a freeze. In the words of John Quinn, Archbishop of San Francisco:

Not only the peace of the world but the very survival of the human experiment is at stake unless people take specific, everyday steps against nuclear weapons and become active in a national campaign for a nuclear arms freeze and bilateral disarmament of nuclear

weapons by the United States and the Union of Soviet Social Republics.

The alternative to a nuclear freeze and subsequent weapons reduction is an increasingly armed world where tactical misjudgement, instrument error or desperate caprice may unleash a nuclear missile exchange easily capable of destroying ourselves, our heritage and our future. As physicians dedicated to the preserving of life, I appeal to you to vote yes on proposition 10.

SMA

RADIOGRAPHIC CASE OF THE MONTH

Sanford L. Schatz, MD
Howard R. Cohen, MD
Allan M. Deutsch, MD
Michael J. Ryvicker, MD

Department of Radiology
The Miriam Hospital
Providence, Rhode Island



History

This 60-year-old woman with skin lesions for the past forty years and arthritis for the past twenty years presently has pain in her fingers, and her skin condition has recently worsened.

For discussion turn to next page.

Radiographic Findings

The radiographs demonstrate narrowing of the interphalangeal joints and to a lesser extent the metacarpal-phalangeal (MP) joints and the radial-ulnar joints. There is ankylosis and flexion contractions of the proximal and distal interphalangeal joints. Marked "pencil-point" or "pencil and cup" type of erosions are seen at the proximal phalanges of the thumbs, the middle phalanx of the ring fingers and the navicular bones. Smaller erosions are present at several MP joints bilaterally.

Discussion

This case demonstrates the more typical radiographic features of psoriatic arthritis, which can occur in seven percent of patients with psoriasis. Usually the skin lesions precede the radiographic findings by several years. The extent of the psoriatic changes in the nails is said to correlate with the degree of bony changes at the distal interphalangeal joints and is said to affect the same digits. Also, the worsening of the skin lesions may herald the onset of joint pain. Since psoriatic arthritis begins as a synovial process, it may resemble rheumatoid arthritis radiographically. Clinically, however, there are no Heberden's nodes, or cardiopulmonary nodules and the rheumatoid factor is negative. Like rheumatoid arthritis it tends to involve the small joints of the hands bilaterally (although not always symmetrically), but unlike rheumatoid arthritis, the more typical forms involve the distal interphalangeal joints more than the MP joints or the carpal joints. The juxta-articular osteoporosis, which is a hallmark of rheumatoid arthritis, is unusual in psoriatic arthritis, while the bony ankylosis seen in psoriatic arthritis would be unusual in rheumatoid arthritis and when present is usually limited to the carpal bones. The ulnar deviation seen at the

MP joints in rheumatoid arthritis is not frequently seen in psoriatic arthritis. Both types of arthritis can progress to severe "pencil and cup" erosions with marked joint destruction, telescoping, and complete carpal fusion as seen in the condition known as arthritis mutilans. When the distribution of the psoriatic arthritis is similar to that of rheumatoid arthritis, the two conditions may be impossible to differentiate radiographically. In fact, the patient may have both types of arthritis. Other radiographic changes not well demonstrated in the present case include widening of joint spaces due to subchondral bone destruction, resorption of the terminal tufts of the digits, and fluffy periosteal reaction near the joints and along the affected shafts.

When psoriatic arthritis involves the foot, the changes are most marked at the metatarsal-phalangeal joints, the interphalangeal joints of the great toe, and the calcaneus. Less often, psoriatic arthritis affects the large joints and the spine, where differentiation from the sero-negative arthritides of Reiter's syndrome and ankylosing spondylitis may be extremely difficult. However, the small bone changes of osteolysis and ankylosis are not found in the latter. Involvement of the sacroiliac joints in psoriatic arthritis does not tend to be as symmetrical as in ankylosing spondylitis. The syndesmophyte formation in psoriatic arthritis tends to skip levels and arise from the middle portion of the vertebral bodies and not from the end-plates of the vertebral bodies as in ankylosing spondylitis.

References

- ¹ Forrester DM, Nesson JW: *The Radiology of Joint Disease*. Philadelphia, WB Saunders Co, 1973, pp 17, 28, 86.
- ² Greenfield GB: *Radiology of Bone Diseases*, ed 2. Philadelphia, JB Lippincott Co, 1975, pp 582-585, 645.
- ³ Resnick D, Niwayama J: *Diagnosis of Bone and Joint Disorders*. Philadelphia, WB Saunders Co, 1981, pp 1103-1129.

REPORT OF THE HOUSE OF DELEGATES

Meetings March 24, May 3, June 7, 1982

The **annual session** of the House of Delegates of the Rhode Island Medical Society was held on Wednesday, March 24, 1982, in the auditorium.

The meeting was called to order at 2:05 pm by the speaker of the House, Dr. Leonard S. Staudinger, who requested members present to sign the attendance sheet at the door, in place of a roll call.

Members present were:

Officers: Charles E. Millard, MD, President; William F. Varr, Jr., MD, Vice President; Melvin D. Hoffman, MD, President-Elect; David R. Hallmann, MD, Secretary; Erminio Cardi, MD, Treasurer.

Immediate Past President: Peter L. Mathieu, Jr., MD.

Delegates:

Bristol County Medical Society: Frank Capizzo, MD.

Kent County Medical Society: John C. Osenkowski, Fred T. Perry, MDs.

Newport County Medical Society: Thomas Cahill, Charles P. Shoemaker, Jr., MDs.

Pawtucket Medical Association: David Carter, Robert E. Curran, Paul Healey (in place of Benjamin Healey), Mary-Elaine Rohr, MDs.

Providence Medical Association: Michael S. Barrett, C. John Brex, Frances P. Conklin, John J. Coughlin, Louis M. Damiani, Jr., Carl F. DeLuca, Frank G. DeLuca, Richard D. Frary, Joseph R. Gaeta, Ronald M. Gilman, Herbert F. Hager, Arnold H. Herman, Harry M. Iannotti, Robert A. Indeglia, Donald G. Kaufman, Joseph A. Latina, Mary D. Lekas, Betty B. Mathieu, Anthony F. Merlino, Julius C. Migliori, Richard G. Mignacca, Kenneth B. Nanian, Jay M. Orson, Elliot Perlman, Herbert Rakatansky, Robert W. Riemer, Richard Iacobucci (in place of Michael A. Rochio), Rajnikant K. Shah, S. Frederick Slafsky, Stanley J. Stutz, Albert F. Tetreault, Joseph R. Tucci, Richard B. Turner, Johannes Virks, Louis Vito, Jr., Conrad W. Wesselhoeft, Jr., Robert J. Westlake, Elihu Wing, Jr., MDs.

Washington County Medical Society: Pasquale J. Celestino, Erwin Siegmund, MDs.

Woonsocket District Medical Society: Orazio Basile, John C. Baxter, Paul Hessler, Augustine Colella, MDs.

Specialty Society Representatives: Daniel J. Hanson, MD, Rhode Island Radiological Society; John E. Farley, Jr., Rhode Island Chapter, American Academy of Pediatrics; Alfred A. Arcand, MD, Rhode Island Chapter, American Academy of Family Physicians; Paul J. M. Healey, MD, Rhode Island Chapter, American College of Surgeons; Walter Cotter, MD, Rhode Island Society of Neurosurgery; Robert Baute, MD, Rhode Island Thoracic Society.

District Society Presidents: Edward Asprinio, MD (Kent); Richard G. Bertini, MD (Pawtucket); Herbert Rakatansky, MD (Providence); Douglas Rayner, MD (Washington).

Speaker and Vice Speaker: Leonard S. Staudinger, MD, Speaker of the House; Charles P. Shoemaker, MD, Vice Speaker of the House.

Members Ex Officio: Seebert J. Goldowsky, MD, Editor, *Rhode Island Medical Journal*; John J. Cunningham, MD, Delegate, American Medical Association; Herbert F. Hager, MD, Alternate Delegate, American Medical Association; William J. MacDonald, MD, Chairman of the Board of Blue Shield.

Also present were: Stephen J. Hoyer, Lewis Johnson, Kenneth Liffmann, Joseph P. Lombardozzi, Hugo Taussig, MDs.

Staff present were: Norman A. Baxter, PhD, Executive Director; Karen J. Challberg, Assistant Executive Director; Brian R. Clarke, Assistant Executive Director.

Members absent were:

Delegates:

Kent County Medical Society: William J. O'Rourke (excused), Klaus F. Haas, Vincent R. Iacono, Thomas A. Vest (excused), MDs.

Newport County Medical Society: Edwin Singsen, MD.

Pawtucket District Medical Society: Bruno Borenstein (excused), Richard Wong, MDs.

Providence Medical Association: William M. Colaiace (excused), Peter T. Nigri, Raymon S. Riley, Raymond W. Waggoner, Jr. (excused), MDs.

Washington County Medical Society: Agu Suvari, John J. Walsh, MDs.

Specialty Society Representatives: Henry F. Ize-man, Rhode Island Society of Internal Medicine (excused); John J. Coughlin, MD, Rhode Island

Section, American College of Obstetricians and Gynecologists; Anthony Merlino, MD, Rhode Island Orthopedic Society; Robert Lev, MD, Rhode Island Society of Pathologists, Inc.; Louis Haffen, MD, Rhode Island District Branch, American Psychiatric Association (excused); Augustine M. McNamee, MD, Rhode Island Society of Anesthesiologists; David Kaplan, MD, Rhode Island Society of Emergency Physicians; Arthur B. Kern, MD, Rhode Island Dermatological Society; Guy A. Settipane, MD, Rhode Island Society of Allergy; Samuel V. Just, MD, Rhode Island Ophthalmological Society; William Wexler, MD, Rhode Island Otolaryngological Society; Charles L. Hopper, MD, Providence Surgical Society; Ian B. Tyson, MD, Rhode Island Society of Nuclear Medicine (excused); Jorge Benavides, MD, Rhode Island Thoracic and Cardiovascular Society; Thomas F. Morgan, MD, Rhode Island Neurological Society.

District Society Presidents: Thomas M. Drew, MD (Bristol); Peter D. T. Clarisse, MD (Newport); Alban J. LeBlanc, MD (Woonsocket).

Members Ex Officio: Joseph E. Cannon, MD, Director, Rhode Island Department of Health.

Approval of Minutes

Action: A motion was made, seconded and voted that the minutes of the January 20, 1982 meeting be approved and placed on record.

Report of the Secretary

The Report of the Secretary was noted.

Item 1) reported that the President had been authorized to appoint representatives to 1982 Annual Meetings of New England Medical Societies. The speaker announced that any physician interested in being a representative should contact Norman A. Baxter, PhD, Executive Director.

Item 3) reported appointments to the Long Range Planning Committee. Dr. Melvin D. Hoffman, Chairman, announced that Dr. Richard G. Bertini had declined an appointment and that Dr. Paul B. Metcalf, Jr. should be added in his place to the list of appointees.

Action: A motion was made, seconded and voted that the Report of the Secretary be approved and placed on file.

Report of the Treasurer

Dr. Cardi called attention to the deficit of \$43,910 for 1981. The final figure will be determined after the audit is completed.

Dr. Cardi announced that the projected deficit

for 1982 is now likely to be less than \$20,000 due to savings realized in several areas (1) library, where there has been a reduction of one staff person; (2) *Journal* printing costs have been reduced by about \$15,000 because of a change of printer; (3) increased revenues from rent received from the Medical Bureau as a result of a lease agreement with the Bureau; (4) other internal administrative and operational changes.

Dr. Cardi stated that the Society faces an uncertain financial future unless non-dues income is increased by a corporate restructuring, and, until that is done, dues will have to be increased.

In response to a question about the costs of the *Journal*, Dr. Cardi stated that with the decrease in printing costs to a reasonable level the *Journal* now is a viable project.

Recommendations from the Council

Recommendations from the Council were noted and the following actions were taken:

1) *Nomination of Officers and Standing Committees.* The House noted the slate of officers and standing committees submitted by the Council. A recommendation was presented that the name of Dr. Charles E. Millard be added to the list of members of the Committee on Standards and Credentials. Dr. Charles E. Millard requested that the name of Dr. Patricia Hyzinski be added in place of his own, which was accepted. Also, it was noted that the name of Dr. Jesse Merrill Gibson, Jr., by his own request, should be removed from the list of members of the Medical Economics Committee.

Action: A motion was made, seconded and voted that the Secretary cast one ballot for the slate of officers and standing committees for 1981-1982.

2) *Nominations for Blue Shield Directors.* The slate of nominees to the Blue Shield Board as submitted by the Council was noted: Dr. Joseph E. Caruolo; Dr. George N. Cooper, Jr.; Dr. Herbert F. Hager; Dr. William J. MacDonald. Dr. Richard G. Bertini announced that at a recent meeting of the Pawtucket Medical Association he had been instructed to present to the House the nominees originally submitted to the Council by the Nominating Committee: Dr. Lewis Arnow; Dr. George N. Cooper, Jr.; Dr. Walter C. Cotter; Dr. Richard F. Judkins. By a written ballot the following were chosen as nominees to the Blue Shield Board for three-year terms: Dr. George N. Cooper, Jr.; Dr. Herbert F. Hager; Dr. Richard F. Judkins; Dr. William J. MacDonald.

3) *Nominations for Blue Shield Professional Advi-*

sory Committee. A slate of nominees to the Blue Shield Professional Advisory Committee as submitted by the Council and the Nominating Committee was noted: Dr. Robert E. Baute; Dr. Henry B. Freye; Dr. Paul B. Metcalf, Jr. From the floor additional nominations were made: Dr. Edward Asprinio; Dr. Carl DeLuca; Dr. Herbert Rakatansky; Dr. Francis L. Scarpaci; Dr. John J. Walsh. By a written ballot the following were chosen as nominees to the Blue Shield Professional Advisory Committee: Dr. Robert E. Baute; Dr. Carl DeLuca; Dr. Herbert Rakatansky.

Committee Reports

Written reports of the Ad Hoc Committee on the Director of State Health Department, Committee on Aging, Cooper Property Committee, Medical Aspects of Sports Committee, Perinatal Committee, Public Laws Committee, Social Welfare Committee, Subcommittee on the Delivery of Medical Care — the Doctor, Committee on Annual Work and Scientific Meeting, Science Fair Committee, and Rhode Island Medical Political Action Committee, were accepted to be placed on record.

Dr. Patricia Hyzinski, Chairman of the Physician Assistants Committee, reported orally on recent activities of her committee centering in the endorsement of legislation to be introduced by physician assistants to provide for state registration of PAs and a board to oversee their activities. (There was considerable discussion of Dr. Hyzinski's report within the context of a resolution presented by Dr. Albert Tetreault, see below.)

Action: A motion was made, seconded and voted to accept and approve the report of the Physician Assistants Committee.

Dr. J. Robert Bowen was not present to give an oral report from the Ad Hoc Committee on Ambulatory Surgery Policy. The report will be presented at the next meeting.

Resolutions

1) *Blue Shield-Rhode Island Medical Society Task Force.* A proposed resolution in writing was received from Dr. Melvin D. Hoffman that a Task Force of eight individuals (four physicians and four non-physicians) be appointed jointly by the Chairman of the Blue Shield Corporation and the President of the Rhode Island Medical Society, that the Task Force report its findings on or before the next annual meeting of the Blue Shield Corporation, and that the Task Force have at least one physician and one non-physician who are not currently sitting members of the Board of Directors of Blue Shield.

Action: A motion was made, seconded and voted to approve the resolution to establish a Blue Shield-Rhode Island Medical Society Task Force.

2) *Rotation of Blue Shield Board Members.* A proposed resolution in writing was received from Dr. Melvin D. Hoffman that the Chairman of the Board of Blue Shield be requested to appoint a committee to provide for orderly rotation of Board members.

Action: A motion was made, seconded and voted to approve the resolution.

3) *Reports by Blue Shield Professional Advisory Committee.* A proposed resolution in writing was received from Dr. Frank DeLuca that the President of Blue Shield and representatives from the Rhode Island Medical Society to the Blue Shield Professional Advisory Committee should submit regular written reports of their meetings to the House of Delegates.

Action: A motion was made, seconded and voted to approve the resolution.

4) *Ambulance Services Payments for "Medically Needy Only" Patients.* A proposed resolution was presented by Dr. Charles E. Millard that the Rhode Island Medical Society endorse a position objecting to the discontinuance by the Rhode Island Medical Assistance Program of payments for ambulance services for "medically needy only" patients, when those services are required according to the judgment of the physician.

Action: An action was made, seconded and voted to approve the resolution.

5) *Appointment of Member of Rhode Island Society of Pathologists to Government Bodies.* A proposed resolution was presented by Dr. Lewis Johnson that, in view of the "new federalism" placing an added responsibility on state governments for determining distribution of government health funding, the Rhode Island Medical Society recommend appointment of a member of the Rhode Island Society of Pathologists, when this is appropriate, to those government bodies invested with the new responsibility.

A motion was made to refer this motion to the Public Laws Committee. In a vote the motion was not approved.

In a vote the above resolution was not approved.

6) *Physician Assistants Legislation.* A proposed resolution, in several parts, was presented by Dr. Albert Tetreault that the House of Delegates oppose House bill 82-7695 recently introduced in the Rhode Island legislature.

In a vote the above resolution was not approved.

A motion was made that the House of Delegates endorse the presently pending physician assistant legislation. It was voted (6 votes objecting) that this motion be tabled.

Miscellaneous

Dr. Charles Shoemaker reported for the Blue Shield Liaison Committee on the new physician agreement now being developed. A discussion followed on fees, etc.

As this was the last meeting of the House of Delegates prior to the end of the present term, the House noted, with appreciation, the dedi-

cated service of Dr. William Varr, Vice President, Dr. David Hallmann, Secretary, Dr. Erminio Cardi, Treasurer, and Dr. Leonard Staudinger, Speaker of the House. In view of the upcoming termination of the terms of service by Dr. Joseph E. Caruolo and Dr. John Walsh on the Blue Shield Board of Directors, the House gave a round of applause in appreciation for their work.

Adjournment

Action: A motion was made, seconded and voted to adjourn (4:50 pm).

Respectfully submitted,
David R. Hallmann, MD
Secretary

A **special meeting** of the House of Delegates of the Rhode Island Medical Society was held on Monday, May 3, 1982 in the auditorium of the Rhode Island Medical Society. The special meeting had been called by the president of the Rhode Island Medical Society, Charles E. Millard, MD, at the request of 15 or more delegates.

The meeting was called to order by the Speaker of the House, Dr. Leonard S. Staudinger at 7:15 pm. Members present were:

Officers: Charles E. Millard, MD, President; Melvin D. Hoffman, MD, President-Elect; William F. Varr, Jr., MD, Vice President; and David R. Hallmann, MD, Secretary.

Immediate Past President: Peter L. Mathieu, Jr., MD.

Delegates:

Bristol County Medical Society: Frank Capizzo, MD.

Kent County Medical Society: William J. O'Rourke, MD, Edward F. Asprinio, MD (substituting for Klaus F. Haas, MD), Vincent R. Iacono, MD, John C. Osenkowski, MD, Fred T. Perry, MD, Thomas A. Vest, MD.

Newport County Medical Society: Charles P. Shoemaker, Jr., MD.

Pawtucket Medical Association: Richard G. Bertini, MD (substituting for Bruno Borenstein, MD), David Carter, MD, Peter R. Simon, MD (substituting for Robert E. Curran, MD), Agnes Somlo, MD (substituting for Benjamin Healey, MD), Richard Wong, MD.

Providence Medical Association: Michael S. Barrett, MD, William M. Colaiace, MD, Frances P.

Conklin, MD, Louis M. Damiani, Jr., MD, Carl F. DeLuca, MD, Frank G. DeLuca, MD, Richard D. Frary, MD, Herbert F. Hager, MD, Arnold H. Herman, MD, Robert A. Indeglia, MD, Betty B. Mathieu, MD, Mario Tami, MD (substituting for Anthony F. Merlino, MD), Tadeusz A. Gotlib, MD (substituting for Julius C. Migliori, MD), Herbert Rakatansky, MD, Michael A. Rocchio, MD, Rajnikant K. Shah, MD, S. Frederick Slafsky, MD, Stanley J. Stutz, MD, Albert F. Tetreault, MD, Frederick M. Johnson, MD (substituting for Joseph R. Tucci, MD), Johannes Virks, MD, Louis Vito, Jr., MD, Conrad W. Wesselhoeft, Jr., MD, Elihu Wing, Jr., MD.

Washington County Medical Society: Pasquale J. Celestino, MD, Erwin Siegmund, MD, Robert L. Conrad, MD (substituting for Agu Suvvari, MD) R. Bruce Gillie, MD (substituting for John J. Walsh, MD).

Woonsocket County Medical Society: Augustine Colella, MD.

Also present were: Joseph E. Caruolo, MD, Paul T. Welch, MD, Karl Karlson, MD, Mario Tami, MD, Augustine McNamee, MD, Walter C. Cotter, MD, Robert Rosen, MD, Henry Izeman, MD, Patricia Hyzinski, MD, Richard T. McDermott, Jr., MD, Ronald Audette, PA, Joe Massaro, PA, Jack Cooke, PA.

Staff present were: Norman A. Baxter, PhD, Executive Director; Karen J. Challberg, Assistant Executive Director; Brian R. Clarke, Assistant Executive Director.

Members absent were:

Officer: Erminio Cardi, MD, Treasurer.

Delegates:

Newport County Medical Society: Thomas Cahill, MD, Edwin Singsen, MD.

Pawtucket District Medical Society: Mary-Elaine Rohr, MD.

Providence Medical Association: C. John Brex, MD, Joseph R. Gaeta, MD, Ronald M. Gilman, MD, Harry M. Iannotti, MD, Donald G. Kaufman, MD, Joseph A. Latina, MD, Mary D. Lekas, MD, Richard G. Mignacca, MD, Kenneth B. Nanian, MD, Peter T. Nigri, MD, Jay M. Orson, MD, Elliot Perlman, MD, Robert W. Riemer, MD, Richard B. Turner, MD, Raymond W. Waggoner, Jr., MD, Robert J. Westlake, MD.

Woonsocket District Medical Society: Orazio Basile, MD, John C. Baxter, MD, Paul Hessler, MD.

Dr. Staudinger opened the meeting by announcing that the special session had been called at the petition of 15 or more delegates, as required by the Bylaws, for the purpose of discussing a physician assistant bill (H7695-A) presently being considered in the Rhode Island General Assembly. A request was made that the names on the petition be read, which was done.

Action: A motion was made, seconded, and voted that each delegate be limited in speaking time to 5 minutes.

Action: A motion was made, seconded, and voted that a delegate be allowed to give his 5 minutes to another delegate.

Discussion was opened with a motion that the Rhode Island Medical Society go on record as not supporting bill H7695-A "An Act Relating to Physician Assistants."

A brief statement of each speaker's main points are listed:

- In opposition to the bill it was noted that the nature of the supervision of PAs by physicians is not appropriately specified in the bill.

- In explanation of the House of Delegates action at the March 24, 1982 meeting to table a motion to approve H7695-A, it was explained that further information about the bill was needed.

- It was objected that at a meeting of the Finance Committee of the House of Representatives the Society's position on the bill had been represented as in favor, and that this is erroneous.

- In opposition to the bill, it was stated that the bill is not sound, but contains many technical errors.

- It was suggested that PAs function differently in hospitals than in physicians' offices and that it may be advisable for there to be distinct speci-

fications for PAs functioning in each of the two settings.

- The question was raised: what provision is there for continued supervision of a PA or PAs in the event of the death of the supervising physician.

- In support of the bill, the opinion was expressed that PAs are well-trained and are assets to the health care delivery team. The opinion was expressed that PAs, as members of the Society, deserve its support. It was noted that PAs have attempted to work with the Society, while other paraprofessionals seeking legislation have not done so.

- In support of the bill, it was stated that the bill is technically correct, and that it provides for assurance of quality of health care by PAs.

- Suggested amendments to the bill in section 5-54-2, 5-54-7, and 5-54-8 were presented as a hand-out.

- A question was raised by the speaker as to whether changes in the legislation could be made in the time remaining before the end of the session. An opinion was expressed that there is time to make the changes.

- In support of the bill, it was noted that the proposed legislation already contains an amendment recommended by PAs increasing the specifications for supervision of a PA by a physician over those required in the presently existing legislation.

- In support of the bill, it was noted that the Department of Health's careful scrutiny of it assures that it is technically correct. The opinion was expressed that the bill is reform, not a bid for power.

- It was suggested that statutory amendments to the bill (as proposed on the attachment) can be made at a later time following the bill's passage.

- In opposition to the bill, concern was expressed with the composition of the board and the possibility that non-physician views would prevail. The issue of present oversupply of physicians in Rhode Island also was raised.

- In support of the bill, it was suggested that physicians should try to control the PA board, which is appointed by the Governor. It was also noted that the Society should guard against confusion of issues related to nurse practitioners as compared with those related to PAs, as these are distinct professions.

- The suggestion was made that the Society should neither endorse nor oppose the proposed legislation at the present time.

Following an action to move the question, the motion on the floor that the Society go on record as not supporting the bill failed by a vote of 19 (in favor) to 24 (opposed).

Action: A motion was made, seconded, and unanimously voted (42 votes) that the Society go on record as supporting bill H7695-A "An Act Relating to Physician Assistants" with the changes presented by Walter C. Cotter, MD to

be transmitted as valuable clarifications for implementation either before or after passage.

There being no further business the meeting was adjourned at 9:15 pm.

Respectfully submitted,
David R. Hallmann, MD
Secretary

A **special meeting** of the House of Delegates of the Rhode Island Medical Society was held on Monday, June 7, 1982, for informational purposes only. The agenda was limited to discussion of the recent inquiry addressed by the Federal Trade Commission to Blue Shield and the impact that that inquiry might have on the Rhode Island Medical Society.

The meeting was called to order at 7:30 pm by the Speaker of the House, Dr. Frank DeLuca, who requested members present to sign the attendance sheet at the door, in place of roll call.

Members present were:

Officers: Leonard S. Staudinger, MD, Vice President; Charles P. Shoemaker, Jr., MD, President-Elect; Kenneth Liffmann, MD, Treasurer.

Immediate Past President: Charles E. Millard, MD.

Delegates:

Kent County Medical Society: John C. Osenkowski, Thomas A. Vest, MDs.

Newport County Medical Society: Charles P. Shoemaker, Jr., MD.

Pawtucket Medical Association: Mohammad A. Khan, Richard Wong, MDs.

Providence Medical Association: John J. Coughlin, Carl F. DeLuca, Frank G. DeLuca, Richard D. Frary, Joseph R. Gaeta, Herbert F. Hager, Harry M. Iannotti, Robert A. Indeglia, Joseph A. Latina, Mary D. Lekas, Betty B. Mathieu, Anthony F. Merlino, Richard G. Mignacca, Kenneth B. Nanian, Herbert Rakatansky, Michael A. Rocchio, Albert F. Tetreault, Richard B. Turner, Johannes Virks, Louis Vito, Jr., Elihu Wing, Jr., MDs.

Washington County Medical Society: John J. Walsh, MD.

Woonsocket District Medical Society: John C. Baxter, Paul Hessler, MDs.

Specialty Society Representatives: Henry F. Izman, MD, Rhode Island Society of Internal Medicine; Alfred A. Arcand, MD, Rhode Island Chap-

ter, American Academy of Family Physicians; Louis Hafken, MD, Rhode Island District Branch, American Psychiatric Association; William Wexler, MD, Rhode Island Otolaryngological Society; Paul J. M. Healey, MD, Rhode Island Chapter, American College of Surgeons.

District Society Presidents: Herbert Rakatansky, MD (Providence).

Speaker and Vice Speaker: Frank G. DeLuca, MD, Speaker of the House; Peter D. T. Clarisse, MD, Vice Speaker of the House.

Members Ex Officio: Seebert J. Goldowsky, MD, Editor, *Rhode Island Medical Journal*; John J. Cunningham, MD, Delegate, American Medical Association; Herbert F. Hager, MD, Alternate Delegate, American Medical Association; William J. MacDonald, MD, Chairman of the Board of Blue Shield.

Non-members present were: Richard F. Judkins, Paul B. Metcalf, Jr., MDs; Charles E. Clapp, II, Patricia A. S. Zesk, Esqs., Edwards & Angell; Norman A. Baxter, PhD, Executive Director; Karen J. Challberg, Brian R. Clarke, Assistant Executive Directors.

Members absent were:

Officers: Melvin D. Hoffman, MD, President; Milton W. Hamolsky, MD, Secretary.

Delegates:

Bristol County Medical Society: Frank Capizzo, MD.

Kent County Medical Society: William J. O'Rourke, Klaus F. Haas, Fred T. Perry, MDs.

Newport County Medical Society: Thomas Cahill, Edwin Singsen, MDs.

Pawtucket Medical Association: David Carter, Robert E. Curran, Mary-Elaine Rohr, Peter R. Simon, MDs.

Providence Medical Association: Michael S. Barrett, C. John Brex, William M. Colaiace, Frances P. Conklin, Louis M. Damiani, Jr., Ronald M. Gilman, Arnold H. Herman, Donald G. Kauf-

man, Julius C. Migliori, Peter T. Nigri, Jay M. Orson, Elliot Perlman, Robert W. Riemer, Raymon S. Riley, Rajnikant K. Shah, S. Frederick Slafsky, Stanley J. Stutz, Joseph R. Tucci, Raymond W. Waggoner, Jr., Conrad W. Wesselhoeft, Jr., Robert J. Westlake, MDs.

Washington County Medical Society: Pasquale J. Celestino, Erwin Siegmund, Agu Suvvari, MDs.

Woonsocket District Medical Society: Orazio Basile, Augustine Colella, MDs.

Specialty Society Representatives: John J. Coughlin, MD, Rhode Island Section, American College of Obstetricians and Gynecologists; Anthony Merlino, MD, Rhode Island Orthopedic Society; Daniel J. Hanson, MD, Rhode Island Radiological Society; John E. Farley, Jr., MD, Rhode Island Chapter, American Academy of Pediatrics; Robert Lev, MD, Rhode Island Society of Pathologists, Inc.; Augustine M. McNamee, MD, Rhode Island Society of Anesthesiologists; S. D'Amato, MD, Rhode Island Society of Emergency Room Physicians; Arthur B. Kern, MD, Rhode Island Dermatological Society; Guy A. Settipane, MD, Rhode Island Society of Allergy; Samuel V. Just, MD, Rhode Island Ophthalmological Society; Charles L. Hopper, Providence Surgical Society; Walter Cotter, MD, Rhode Island Society of Neurosurgery; Ian B. Tyson, MD, Rhode Island Society of Nuclear Medicine; Robert Baute, MD, Rhode Island Thoracic Society; Jorge Benavides, MD, Rhode Island Thoracic and Cardiovascular Society; Thomas F. Morgan, MD, Rhode Island Neurological Society.

District Society Presidents: Thomas M. Drew, MD (Bristol); Edward Asprinio, MD (Kent); Elie Cohen, MD (Newport); Constantine Demopoulos, MD (Pawtucket); Douglas Rayner, MD (Washington); Alban J. LeBlanc, MD (Woonsocket).

Member Ex Officio: Joseph E. Cannon, MD, Director, Rhode Island Department of Health.

The Speaker introduced Ms. Zesk, who gave a factual presentation concerning the Federal Trade Commission's inquiry that was addressed to Blue Shield on March 16, 1982. Specifically, she addressed the following: 1) Background facts on FTC inquiry; 2) Legal basis for FTC inquiry; 3) Potential adverse impact of FTC inquiry on Rhode Island Medical Society; 4) Blue Shield's

response to the FTC inquiry; 5) Impact of restructuring of Blue Shield on the Rhode Island Medical Society and Rhode Island physicians.

Report of the Blue Shield Communications Committee

Dr. Paul Metcalf delivered the report of the Blue Shield Communications Committee. He informed members that the Committee had concluded that a total severance of any relationship that may presently exist between the Rhode Island Medical Society and Blue Shield is desirable for all concerned. However, the Committee did not make any formal recommendations for action by the Rhode Island Medical Society.

Options Available to the Rhode Island Medical Society.

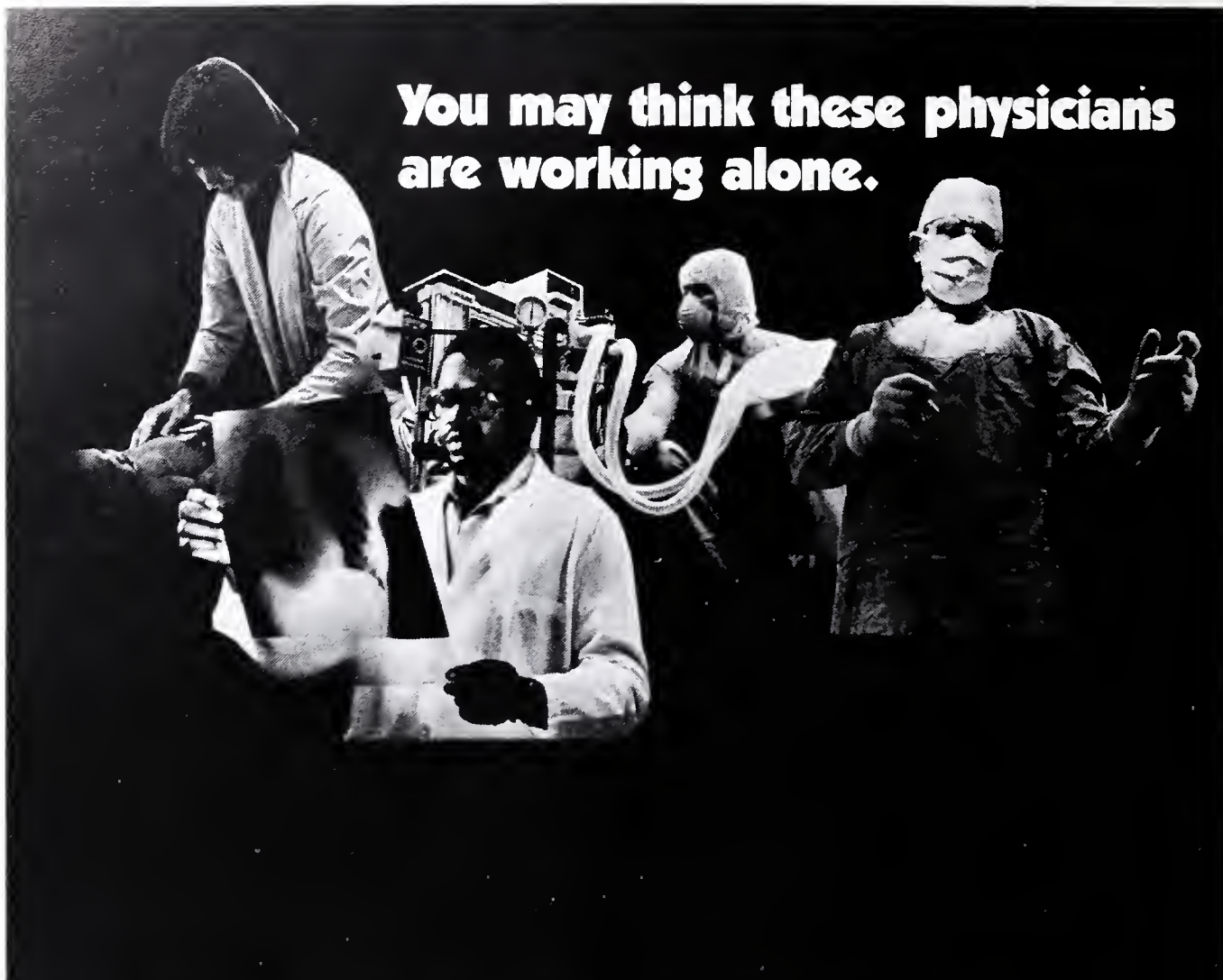
Ms. Zesk outlined various options available to the physicians of Rhode Island in the event that Blue Shield reorganizes so as to eliminate any involvement by the Rhode Island Medical Society and to reduce physician involvement to 25 per cent of any nonadvisory body within Blue Shield. The options outlined were as follows: 1) Continued involvement by physicians in Blue Shield advisory committees (except that such committee members would not be selected by the Rhode Island Medical Society); 2) Continued functioning of a Blue Shield Communications Committee, which would serve as a link between the physicians and Blue Shield and would operate as a conduit for suggestions and information.

Dr. DeLuca then opened the meeting to questions to be addressed either to Mr. Clapp or to Ms. Zesk. All questions were limited in subject matter to the FTC inquiry. No action, by way of resolution or otherwise, was taken.

Adjournment

Upon motion duly made, seconded and unanimously passed, it was voted to adjourn at 9:00 pm.

Respectfully submitted,
Norman A. Baxter, PhD
Executive Director
(in the absence of the Secretary) ■



You may think these physicians are working alone.

But they really have a team behind them.

These physicians spend most of their day working independently in a one-to-one doctor/patient relationship. And chances are that as a physician, you do too.

But even though you can't see it, there's a strong team supporting and protecting the medical profession, affecting your practice while you see patients, research new drugs or perform surgery. That team consists of *your medical societies*.

The American Medical Association and your state and county medical societies believe in the value of teamwork; that only by working together can we, in the face of an increasingly complex professional environment, protect your right to make responsible decisions on how to practice medicine.

We also believe that all medical societies — county, state, and national — have certain tasks that the individual physician couldn't possibly assume — and shouldn't have to.

Tasks such as keeping government regulations from interfering with your practice by representing your interests at local and national levels. And challenging regulatory measures that threaten you and your patients' interests by mounting legal campaigns to defend your rights — up to the Supreme Court if necessary.

Why do we believe that *teamwork* means so much to *all* physicians — even those who work "alone"?

Because ... IT WORKS.

Join Your Medical Societies Today.

For more information, contact your state or county medical societies, or call the AMA collect at 312/751-6196. Or return the coupon below to your state or county medical society.

- ☐ Please send me information on AMA, county, and state society membership.
- ☐ I am a member of my county and state societies; please send me information on joining the AMA.

Name

Street

City State Zip

County

There's more to **ZYLOPRIM[®]** than (allopurinol).



- From Burroughs Wellcome Co. – the discoverer and developer of allopurinol
- Patient starter/conversion kits available for easy titration of initial dosage
- Patient compliance pamphlets available
- Continuing medical education materials available for physicians



Prescribe for your patients as you would for yourself.

*Write "D.A.W.," "No Sub," or "Medically Necessary,"
as your state requires, to make sure
your patient receives the original allopurinol.*



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION: INSOMNIA

Others to look for:

agitation

anorexia

feelings of guilt
and worthlessness

fatigue

palpitations

headache

vague aches
and pains

sadness

psychic and
somatic anxiety

Artist's conception
looking out from the human eye
as conceived in a schematic model.



LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

**Limbitrol given once daily h.s.
may be the best approach**

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline
(as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline
(as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus bradycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses). Myocardial infarction and stroke reported with use of this class of drugs. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

WHY YOU SHOULD MAKE A CORPORATE CONTRIBUTION TO THE AD COUNCIL

The Advertising Council is the biggest advertiser in the world. Last year, with the cooperation of all media, the Council placed almost six hundred million dollars of public service advertising. Yet its total operating expense budget was only \$1,147,000 which makes its advertising programs one of America's greatest bargains... for every \$1 cash outlay the Council is generating over \$600 of advertising.

U.S. business and associated groups contributed the dollars the Ad Council needs to create and manage this remarkable program. Advertisers, advertising agencies, and the media contributed the space and time.

Your company can play a role. If you believe in supporting public service efforts to help meet the challenges which face our nation today, then your company can do as many hundreds of others—large and small—have done. You can make a tax-deductible contribution to the Advertising Council.

At the very least you can, quite easily, find out more about how the Council works and what it does. Simply write to: Robert P. Keim, President, The Advertising Council, Inc., 825 Third Avenue, New York, New York 10022.



A Public Service of This Magazine & The Advertising Council.

The cost of preparation of this advertisement was paid for by the American Business Press, the association of specialized business publications. This space was donated by this magazine.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Time-Limited Action-Oriented Psychotherapy in a General Hospital with Focus on Separation: Follow-up of Twelve Patients

Short-Term Therapy Was Effective for Two-thirds of Those Selected Who Accepted the Treatment Contract

Elizabeth S. McCormick, MSW
Doris S. Warren, AB
Joseph M. Zucker, MD

In 1958, the Psychiatric Out-Patient Department of the Rhode Island Hospital, a clinic dating from at least 1910, began using the systematic objective Meyerian (psychobiologic) workup of patients at intake, along with psychologic evaluation (WAIS* and projectives). With the continuing lack of voluntary psychiatrists, with changes in the demands made of the clinic, and with the changing roles of social workers, it became an orthopsychiatric experiment in teamwork and psychotherapy. We became increasingly aware of the impaired sense of identity in many patients

* Wechsler Adult Intelligence Scale.

Elizabeth S. McCormick, MSW, ACSW, formerly Assistant Director of Social Service Department and Supervisor of Social Work Practice and Education, Rhode Island Hospital, Providence, Rhode Island.

Doris S. Warren, AB, ACSW, formerly Social Worker, Psychiatric and Neurologic Outpatient Department and Intake Worker for the Psychiatric Outpatient Department, Rhode Island Hospital, Providence, Rhode Island.

Joseph M. Zucker, MD, APA (LF), formerly Director, Psychiatric Outpatient Department, Rhode Island Hospital; Assistant Clinical Professor of Psychiatry, Brown University Medical School, Providence, Rhode Island.

along with symptoms of separation-anxiety. We were familiar with the work of Bowlby¹ and Mahler.⁶ We had become aware of the work of Mann⁷ (time-limited concepts) and Engel³ (giving-up/given-up complex, the hold-on/let-go ambivalence of the pre-oedipal stage of development). Early oral emotional deprivation was common, too, in many of our referrals. Could this be overlooked while treatment focused on separation? Toward the end of 1969, we decided to select patients, usually new to us, in whom attachment-detachment with underlying hostility was especially conspicuous in their present and past histories. They would be offered a contract for treatment in twelve successive weekly sessions — short-term psychotherapy. We differentiated this from crisis therapy much in use in any general hospital. The therapist took every opportunity and would be actively assertive in highlighting facts of “separation hostility.”

In 1976, the clinic and staff situations favored us with a chance to review these selected cases. Though this was not begun as a research study and since there were no controls and the sample was small and not statistically valid, we felt that, with two-thirds of the participants improved, the insight and experience we gained and the results we discovered at follow-up warranted sharing our experience with others.

From January 1970 to April 1974, 444 patients were referred to the Psychiatric Clinic. Fifteen of these were offered short-term therapy; twelve accepted the contract. The psychiatric social

worker (ESM) who had supervised the therapists located ten in 1976. She interviewed nine individually. The tenth was evaluated from a coincidental meeting with the original intake worker (DSW) in the same year. The original supervising team reviewed the findings and classified the patients in terms of results.

As we reviewed the cases and the follow-up interview, we also discussed the social workers who had served as therapists. Did the personalities of these "tools of therapy" play a role in the therapy and the results? If so, how? The supervisor, with their active cooperation, proceeded to collect pertinent facts in their life histories.

Method

All the patients, like all referrals since even before 1958, had to be oriented at intake for the psychiatric referral. Then the workup proper was begun and permits obtained for collecting all possible information from all possible sources. The acceptance by the intake worker, listening to the patient, accepting the patient as an intact person, and making the interviews a joint process seemed new and surprising to the patient and made for a positive transference of the patient to the worker and to the clinic.

At a staff conference (JMZ as psychiatric consultant), the facts were presented and discussed, and a tentative formulation attempted with speculation and exploration of subjective Freudian dynamics. Referral for psychological testing would be made. At the next staff conference, treatment was discussed and a decision made. In the selected cases, the supervising social worker would suggest social workers who had time available and were willing to take on the therapy. The intake worker would inform the patient. The patient was to telephone the selected therapist to set up an appointment, at which time the therapist would propose the contract. The patient could then decide whether to accept it or not.

For the selected patients, the therapist reported after each four sessions at one of the bi-weekly staff conferences. Present would be the supervising team (ESM, DSW, and JMZ), the clinic nurse, and other staff members as observers and participants. Typed progress recording was available. In the interim, the supervising social worker was available daily to the therapists and once a week regularly. The problem was to keep the focus on separation and the underlying hostility, on transference and counter-transference (therapist and consultant, patient and therapist). Along with this went the interpretation (avoid-

ance) of fascinating but irrelevant oral and oedipal material. The supervisor and consultant must avoid feeding the therapist in a supportive way, just as the therapist must avoid this with the patient to prevent "treatment interminable."⁵ The here and now had to be understood in terms of the past. There was also ongoing integration and re-integration as new facts appeared in the course of therapy. The therapist's identity had to be re-enforced to avoid recapitulation of the double-bind.

Findings

The histories in general showed a kind of social heredity (attitudes and patterns passed consciously and unconsciously from generation to generation) for the separation problem — close-knit families, multi-generation mother-daughter separation problems, oral deprivation, and school avoidance problems in early life or adolescence. There was projection of responsibility or feeling too responsible, an either-or approach to life. There were also problems in socialization and in making and keeping friends outside of the home and fears of loss of control of destructive feelings labeled subjectively as fear of going crazy, of making a fool out of one's self. Along with this was the fear of hurting their children physically. Anxiety, depressive reactions, phobias, and psychosomatic reactions in varying degrees and intensity highlighted times of separation stress. Symptoms in six patients were referred to oral-respiratory (intake) phenomena; eg. love of milk, asthmatic attacks, allergies, overweight, denture maladjustment, nasal obstruction, alcoholism, and small breasts. Three had genito-urinary (output) symptoms. One patient had an augmentation mammoplasty the year before therapy. Except for one patient (Case 5), who had a hysterectomy in the course of therapy, all had had physical clearance before and no evidence of significant physical illness at the time of the short-term treatment.

Eleven had had some kind of previous mental health treatment including three who had been in mental hospitals. None of the eleven felt any prolonged benefit from their previous treatment.

Psychiatrically, all fifteen were diagnosed as varieties of passive-aggressive personality disorders. (Today (DSM-III),* they would probably be classified as borderline personality disorders.) Projective testing usually confirmed the dynamics suggested in the histories.

* *Diagnostic and Statistical Manual of Mental Disorders*, ed 3, published by the American Psychiatric Association, 1980.

Table I. Basic Statistics Grouped by Status at Follow-up

Status at Follow-up	Case	Source of Referral		Age	Race		Intelligence	Economic Status		Education	Marital		
		Hosp. OPD	Community		White	Black		Self sup- porting	Public As- sistance		Married	Separated	Single
Improved	1		*	25		*	Above av.	*		X	*		
	2		*	53	*		Average	*		X	Div.		
	4		*	29	*		Above av.		*	XII		*	
	5	*		26		*	Average	Husb.		XII	*		
	6	*		42	*		Average	Husb.		XI	*		
	8		*	34			Low Av.	Husb.		XII	*		
	13		*	28	*		High	TDI		(equiv.) XII			*
	15	*		29	*		Above av.	* & DVR		Univ.			*Platonic live-in
Unchanged	11		*	25	*		Above av.		*	XII		*	
	12	*		33		*	Above av.		*	XII (equiv.)		*	
"Lost"	3		*	23		*	Average		*	X			*
	7	*		38	*		Average	*		X	Wid. (live in)		
No response	9	*		23	*		Average		*	X			*
	10		*	49	*		Average	*		XII		*	
	14	*		21	*		Average		*	XII			*

Table II. Treatment Sessions. Patients Listed by Follow-up Results

Condition at Follow-up	Pt./Th.	Total Treatment Sessions Available	Kept	Cancelled		Nk/Nc*
				By pt.	By th.	
Improved	1/H	14	9	2½	6	2½
	2/D	13	12	0	1	0
	4/H	14	13	1	0	0
	5/H	12	12	0	0	0
	6/E	16	13	1	0	2
	8/A	12	12	0	0	0
	13/B	17	13	2	2	0
	15/C	13	13	0	0	0
Unchanged	11/G	8	5	1	0	2
	12/I	10	4	0	2	4
"Lost"	3/F	11	7	2	0	2
No response	7/A	0	0	0	0	0
	9/H	3	1	1	0	1
	10/D	0	0	0	0	0
	14/E	4	3	1	0	0

* Nk = Not kept and/or Nc = Not cancelled.

Pertinent findings are listed in three tables under four headings based on a patient's condition at follow up: Improved, unchanged, lost, or no response. Patients are numbered; therapists are lettered. The first table gives sources of referral and some of the vital statistics of the patients. The second counts the treatment sessions. The third correlates patient/therapist statistics and gives for each case the years between the end of therapy and the time of follow-up.

Table I shows that community referred patients did somewhat better than those referred from the hospital clinics (better prepared?). Self-supporting patients (upwardly mobile?) did better than Public Assistance (PA) patients. The existence of a marriage (past or present) was associated with better results than separation or celibacy (more separation from home and more socialized?). Color, age, intelligence (most of the patients were average or above), and level of education (all had been through grade 10) were not significant.

Table II shows the obvious: those who had adhered to the contract and improved completed at least twelve of the sessions (better motivated?). Did something bias us in the choice of the others? Were we swayed by what we felt was their need more than by what they needed? Were we remiss in the initial evaluation of their motivations?

As indicated in Table III, the age of the patient and the age of the therapist made no difference in the results, but did call for special direction in supervising the younger therapists.⁸ Most of the therapists were single, unlike most of the patients, but this did not seem to effect the results. A therapist's personal therapy did make some difference for the better. However, a therapist's previous experience in carrying out therapy did not help. Patients who improved usually did not seek any further therapy. The years between the end of therapy and the follow-up made no difference.

The status of the "improved" patients at follow-up was as follows:

1. He had changed jobs, was working regularly. His wife had continued her education and was employed as a teacher. The marriage was going more smoothly. He did not mention whether or not his drinking had diminished.
2. She was living alone more comfortably, enjoying TV, having a better relationship with her son and his wife, planned to work to retirement, and had developed a bit of a social life. There had been no more crying spells.
4. Her husband had advanced in his job. They bought a better home. Their marital relationship had improved. She had another baby followed by a tubal ligation. With the new home, socializing was developing. She was planning to work when

Table III. Follow-up. Cross-Correlations

Condition at Follow-up	Pt./Th.	Age at Time of Therapy	Marital Status Pt./Th.	Sessions Kept/ Sessions Available	Prev. Therapy Pt./Th.	Therapy after Short-term Therapy Pt./Th.	An Identical Traumatic Life Experience (Th.)	Years Between End of Therapy and Follow-up
Improved	1/H* M.bl.	25/29	M/S	9/14	+ / +	0 / +	+	6
	2/D*	53/50	Div./S	12/13	+ / +	? / +	+	6
	4/H*	29/29	M/S	13/14	0 / +	0 / +	+	6
	5/H* bl.	26/30	Sep./S	12/12	? / +	0 / +	+	5
	6/E*	42/55	M/M	13/16	+ / 0	0 / 0	0	5
	8/A	34/24	M/S	12/12	0 / 0	0 / 0	+	5
	13/B	28/26	S/S	13/17	0 / 0	0 / +	+	2
	15/C	29/29	S/M	13/13	0 / 0	? / 0	+	2
	11/G	25/25	Sep./M	5/7	0 / 0	0 / 0	+	4
Unchanged	12/I bl.	33/32	Sep./S	4/10	+ / 0	+ / 0	0	4
	3/F* bl.	23/56	Rem./Wid.	7/11	? / 0	? / 0	0	—
No response	7/A	38/24	Wid./S	0	?	—	0	—
	9/H*	23/31	S/S	1/3	— / +	— / +	0	—
	10/D*	49/50	Div./S	0	—	—	—	—
	14/E*	21/58	S/M	3/4	— / 0	— / 0	—	—

* = "Experienced" M. = male bl. = Black

her last child began school.

5. Her husband had gone into government work and was in a special training assignment. They had moved away from their families of origin. Marital relationship was much better. She was adjusting better to her husband's being a loner.

6. Diabetes had been ruled out. She had gone to work. She was less subject to depression, was more comfortable in living. She could travel alone without phobia. She was more aggressive for herself. She no longer took medication (Librium® or Valium®). She had moved to a better apartment, which she had previously wanted to do, but "lacked the zip to do." She felt in better physical health.

8. She had moved several times. She gave up taking in her mother. She had suffered the loss by death of six close relatives without any undue reaction. "I no longer get hysterical. I no longer fear going crazy." She was accepting limitations — "life cannot be all good and giving." "I look at things differently." She was working at a health center from eight to three o'clock. "I sometimes cry but I feel good." She had a better marital relationship.

13. She is involved in community activities of interest to herself, especially choral societies, without mother. She dieted successfully and lost one hundred pounds. She changed jobs for the better and is working regularly. She is living more comfortably at home. She was engaged to be married in July 1976. In April, her fiance died unexpectedly. She worked grief through without professional help. She is continuing his work in churches. She can accept anger at her mother's "running off at the mouth" and can hang onto her own identity. "I feel better put together." Where her mother was originally dead set against the patient's getting psychotherapy, she is now very positive about the therapy.

15. She became engaged in May 1975 and married in October 1975. (Her husband was the man with whom she had been living in a brother-sister relationship during therapy.) They had sought pastoral counseling so she "could be extra sure." She was working toward an advanced degree at the university. She no longer felt hopeless and depleted. "I had to separate from mother and sister and accept myself." She made no mention of the phobia (panic at sight of sexy girls) that had been one of her chief complaints.

When we reviewed the "failed" cases at follow-up, we tried to learn what went wrong. Two cases (7, 9) had rejected the initial referral. We could

learn nothing about them. Three cases (11, 12, 14) showed our having taken too much for granted, rushing patient and therapist into treatment without taking time for preparation, adequate communication, and evaluation of motivation of *all* those involved.

One patient (Case 12) illustrated the problems of poor team communication, an inexperienced student worker and an alteration in the original therapist assignment. The nurse who did the intake had retired between the end of Intake and the assignment to the therapist. There were no initial communications between them. For teaching purposes, a man in a student placement was assigned as therapist instead of a woman as recommended. He unexpectedly broke appointments for car trouble and later because of "flu." The patient then experienced "flu" symptoms like his. Unable to recognize this as "identification with the aggressor," he rushed the patient to the Disposition Clinic for physical treatment and did not examine what was going on emotionally. Another patient (Case 11) showed the effects of a non-motivated therapist and a non-oriented worker (a man) from Public Assistance (PA) who had referred the patient. The therapist could not work with the patient or with the PA worker, trying to handle the latter by phone. (In this situation, no one was helped.) (His was a mechanical attitude in which he seemed to put clients into certain pigeonholes, expected them to be quickly repaired and returned to him recovered. He was not — and did not become — aware of his own separation problems.)

The last (Case 14) had a hostile-dependent bond to a mother suffering from mild mental retardation that was too strong for individual short-term therapy and perhaps should have been handled as in a child guidance clinic (involving both mother and child).

Some of the responses given at follow-up as to what patients felt had helped them were as follows: "Why a social worker and not a doctor? But it helped. I couldn't say why or how. I have more good days"; "she was nice"; "she helped me look at things differently"; "she helped me talk up"; "I realized I was not part of my mother; that she, not I, was ill"; "I'm able to feel and express hostility"; "I'm better able to enjoy, including enjoying my husband"; "I'm more mobile"; "I don't need tranquilizers"; "I have better control of me and my life"; "I felt therapy was too confronting, but it hit home"; "I feel free to go back to work, to leave mother, to move near my friend" (an older motherly woman). These comments would seem

to indicate that cognitive insight both helped and was used to verbalize improvement. Some words and expressions indicated the working of a positive emotional transference to the therapist even without cognitive insight.

At follow-up, we thus learned that individual selection had been influenced by factors other than strict dynamics: expediency (pressure to do something), age and lifestyle (not amenable to insight and change), intake worker's positive countertransference (sometimes more reliable than "the facts"), "do" to avoid hospitalization, supply a case for training-teaching, help a representative of another agency with a client (help him separate administrative and treatment roles), high IQ, try something special, use a more experienced social worker, especially with a difficult patient, match therapist to patient; eg, each was overweight, or a "girlish" competitor for patient who panicked at such. There were several instances where unwitting matching had occurred. In one case that did not work out, we later learned that patient and therapist simultaneously had lost a significant person. Each developed similar psychosomatic responses; each had a feeling about the "caring," feeling intake worker, the patient positively, the therapist negatively. (The therapist possibly had to deny and reject wanting what the intake worker could give and the patient could appropriately receive.) We learned to take nothing for granted in supervision and consultation.

Discussion

From 1970 to 1974, fifteen patients were selected for short-term therapy from 444 referrals to the Psychiatric Outpatient Department of the Rhode Island Hospital. Selection was based on the dominance of impaired mother-child separation. Three rejected the clinic. Nine of the twelve who accepted the contract were located in 1976 and cooperated for a follow-up done by the supervising psychiatric social worker. One who did not cooperate for follow-up was evaluated in a coincidental meeting with the intake worker in 1976. Results were thus established in ten out of twelve cases. Eight were improved and had continued so. Two were unchanged at the end of therapy and at follow-up. Of the eight improved, four had sought and received help before referral to us. After the short-term therapy, two of these sought further help briefly, one on referral by her gynecologist and the other, with her boyfriend, for joint premarital pastoral counseling.

The variety of factors that influenced treat-

ment for better or worse were: the lifestyle, life experiences and motivation of the patients; the lifestyle, personal experiences and motivation of the therapists; problems in communication among therapist, supervisor, and consultant; problems in adhering to the contract and to the basic dynamics of separation; problems in communication within the hospital and with outside agencies; the timing of the referral; orientation of both patient and therapist; use of supervisor and consultant; keeping the primary focus on the patient; and relationship of intake worker, clinic nurse, therapist, supervisor, and consultant. Most of the foregoing revolved around the skill, experience, enthusiasm, and capacity of the supervisor and her ability to be many things to many people at the right time.

Short-term therapy was effective for two-thirds of those selected who accepted the treatment contract. It did seem to eliminate "treatment interminable" for those who were helped. And it was effective when used as we used it by six of nine different therapists, three "experienced" and three inexperienced. Each had to learn how and when to be active in the therapy. A coincidental discovery at follow-up was the frequency with which patient and therapist had suffered identical painful mother-child experiences in their own growth and development. Patients should not be lightly assigned to short-term therapy or to any therapist. There should be adequate clinical evaluation of the patient and close supervision of the therapy, preferably in or by a team.

Conclusion

The best basis for selecting patients for this type of therapy is the presence of obvious dynamic factors, a patient motivated to change and a motivated therapist. Avoid the pressure of "give someone the experience"; "there are no other sources"; "alter the prescription"; "but there is a high IQ"; "maybe they'll develop motivation once they begin"; or the hostile "do-gooder" position: "give it to them because they need it even if they don't want it — it will be good for them." One cannot underestimate the role of the unconscious in the pursuit of professional study.

What was surprising and striking was the frequency of traumatic separation experiences in the lives of the therapists similar to those of their patients. Wittingly or unwittingly, resolved or unresolved, did this make for a positive countertransference and hence the better results?

Finally, is the positive worth of our approach evidenced by the fact that, with nine different

therapists, the same process and technique resulted in two-thirds improved rather than one-third improved, one-third unchanged, and one-third worse? Newman has concluded that "a treatment method is valid if the same method is used successfully by five different people."¹⁰

Epilogue

Since this paper was originally presented, more has appeared about the theory and practice of others who have been and are experimenting with short-term psychotherapy. Wherein do we differ? The difference would seem to be where one puts the emphasis in the psychodynamic life process. Subjective anxiety (Sifneos)¹¹ is a positive motivation in any psychotherapy. Time-limiting (Mann)¹² makes separation-anxiety real in the here and now of the therapy situation. In our work we tried to bring into consciousness the early pre-oedipal with the current negative (hostile, the hurt-regret part of the regret-relief ambivalence in grief) component so that it could be blended with the positive (love) (understanding and acceptance) component in a healthier mother-child relationship.

Acknowledgements

We wish to express our appreciation to the Department of Clinical Psychology of Rhode Island Hospital; Harold G. Musiker, PhD, Director, for psychological testing; Horace F. Martin, MD, PhD; and David

Dorsey, BA, Department of Biochemistry, Rhode Island Hospital, who reviewed the statistics and quantification of the project; Mrs. Phyllis B. Gaucher, RN, clinic nurse and occasional intake worker; and the social workers who were the actual therapists and who reviewed this paper, suggesting corrections and modifications.

References

- ¹ Bowlby J: Maternal Care and Mental Health. WHO Monograph No. 2. 1952.
- ² Bowlby J: Attachment. New York, Basic Books, 1969.
- ³ Engel GL: A life setting conducive to illness. The giving-up-give-up complex. *Ann Int Med* 69:293-300, Aug 68.
- ⁴ Erikson EH: Identity & the Life Cycle: Selected Papers. New York, International Universities, 1950.
- ⁵ Freud S: Analysis terminable and interminable, in Strachey J (ed): *Collected Papers*. London, Hogarth, 1950, vol 5, chap 30, pp 316-357.
- ⁶ Mahler MS: Thoughts about development and individuation. *Psychoanal Stud Child* 18:307-324, 1963.
- ⁷ Mann J: The specific limitations of time in psychotherapy. *Seminars Psych* 1 (5):376-379, Nov 69.
- ⁸ McCormick E, Mueller D, Rich P: Management of the transference. *Social Case Work* 27:207-216, 1946.
- ⁹ Muncie W: *Psychobiology and Psychiatry*. St. Louis, CB Mosby, 1939.
- ¹⁰ Newman FL, et al: Program analysis using client-oriented cost outcome. *J Eval and Program Planning*, to be published.
- ¹¹ Mann J: *Time-Limited Psychotherapy*. Cambridge, Harvard University Press, 1973.
- ¹² Sifneos PE: *Short-term Psychotherapy & Emotional Crisis*. Cambridge, Harvard University Press, 1972.

222 Gano Street
Providence, RI 02906

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

**Providing Diagnostic X-Ray, EKG, Holter-Monitoring (by appointment)
and Ultrasound Services (by appointment) to:**

- *Nursing and Convalescent Homes**
- *Shut-ins and Private Home Patients**
- *Post Surgical Patients**

Our service is certified by the R.I. Department of Health. Reimbursement is provided by
Medicare, R.I. Blue Shield and Medical Assistance.

***Same Day Examination
and Reporting***

**24 Hour Service
7 Days a Week**

***"To Some People We're
More Than A Service."***

Overview on the Competency to Stand Trial and Determination of Criminal Responsibility

Psychiatrists Can Contribute to Safeguarding the Rights and Interests of Both the Individual and Society

Manuel E. Soria, MD

In every forensic center psychiatrists are often called into a court of law to determine the defendant's competency to stand trial and to establish the defendant's criminal responsibility. These two issues constitute the bulk of work done by a forensic psychiatrist. It is important to distinguish and clarify these two issues.

Competency to Stand Trial

As far back as the 18th Century, Blackstone wrote that one who is mad should not be arraigned for an offense. However, in 1960 the United States Supreme Court articulated the federal standard in *Dusky vs WS* and approved a test of incompetence that serves to ascertain whether a criminal defendant has sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding and whether he has a rational as well as factual understanding of the proceedings against him. Adequate observance of procedures to protect a defendant's right to be tried or convicted is necessary to his due process right to a fair trial. Almost always trial judges automatically order an examination for competency to stand trial when requested by a trial counsel who may merely affirm without support-

ing evidence that his client is confused, disoriented, or uncommunicative. Thus a possible reversal of a guilty verdict on appeal will be avoided.

Criteria of Competency to Stand Trial

The basic criteria for competency to stand trial include: a) comprehension of court proceedings; and b) ability to advise counsel. Over the years various forms have been devised using these criteria. In Rhode Island the statute of competency to stand trial is General Law 40.1-5.3-3 (a) which states: "A person is mentally competent to stand trial if he is able to understand the character and consequences of the proceedings against him and is able to assist in his defense." A checklist by Ames Robey, MD, former Medical Director, Massachusetts Correctional Institution in Bridgewater, includes a third criterion: susceptibility to decompensation while awaiting or standing trial — violence, acute psychosis, suicidal depression, regressive withdrawal, and organic deterioration. The competency screening tests by Lipsitt and Lelos utilize a series of 22 questions with a method scoring. Other forms by Bukatman and McGarry conform essentially with the basic criteria. The importance of performing a psychiatric assessment which includes a mental examination cannot be overemphasized. Prior to evaluation the defendant is usually given the LAMB's warning in which he/she is told that the evaluation is court ordered, and that the material discussed will not be held confidential and a re-

Manuel E. Soria, MD, Acting Assistant Director of Medical & Psychiatric Services and Clinical Director, Forensic Unit, Institute of Mental Health, Cranston, Rhode Island.

port will be sent to the court. He must have at least a layman's understanding of the test criteria. In accordance with court proceedings, the defendant must have knowledge that he/she will be tried in a court of law, has the ability to understand the adversary nature of a trial, and understands his/her alleged charges and the nature of these charges. He must understand the court surroundings; the roles of judge, jury, defense and prosecuting attorneys; and his/her legal rights. The defendant must understand the consequences of conviction, verdict, and penalties. In order to assist counsel, defendant must be able to understand facts, plea, legal strategy, maintaining relationship with lawyer, maintaining consistency of defense, waiving rights, interpreting witnesses, testimony, and testifying if necessary. In order to assist the court, a general determination of patient's possible danger to himself or others is helpful. If suicidal, is it due to depression or a way of seeking attention? If homicidal, is defendant likely to decompensate while awaiting trial if found competent? From a practical viewpoint competency to stand trial may be considered to be relative. In some cases, the psychiatrist may be obliged to appear in court to testify. In most cases, however, a written competency report is all that is required. In estimating competency certain factors must be taken into consideration, such as the severity of the alleged charges; educational level of the defendant; the clinical symptoms, manipulations, and malingerings of the defendant; and his/her IQ level (generally competent with Full Scale IA 60-WAIS). Although a defendant may harbor certain residual symptoms of psychosis, he may still be considered as competent to stand trial in accordance with the criteria.

The determination of competency to stand trial is a function of the Forensic Unit, Institute of Mental Health (IMH), Rhode Island Medical Center. The Forensic Unit of the IMH serves the entire state of Rhode Island for referrals from the eight divisions of District Court and four Superior Courts: Providence, Newport, Kent, and Washington Counties. An average of 200 to 250 defendants are referred to the Forensic Unit for competency evaluations each year. Approximately 69 to 70 per cent of referrals come from District Courts, and 30 to 31 per cent from the Superior Court. In applying Rhode Island statute 40.1-5.3-3 (a), 87 to 88 per cent of the District Court referrals were found competent to stand trial and remained in the Forensic Unit for an average of two to three days. Of Superior Court referrals 89 to 90 per cent were found competent to stand

trial and remained in the Forensic Unit for an average of 15 days. Thus, those found incompetent averaged 12 to 13 per cent for District Court and 10 per cent to 11 per cent for Superior Court. District Court referrals for competency evaluations are in general ordered for periods of one to seven days, and may be extended for further evaluation if the defendant is found to be incompetent. Superior Court referrals, in view of the more serious charges, are ordered for periods of 15 to 30 days, and, if the defendant is found incompetent, may be extended for reevaluation, treatment, or both.

Criminal Responsibility

Psychiatrists may be called to court to establish a defendant's responsibility for an act committed. This is less frequent than a determination of competency to stand trial. The issue of criminal responsibility from the historical point of view is complex and baffling. Innumerable articles and books have been written about it, and the more one reads the more confused one becomes. There are about eighteen tests used to determine criminal responsibility in the United States in the eleven federal and fifty state jurisdictions of this country. The best known tests for criminal responsibility of which there are many "variants" are: 1) M'Naghten; 2) The Irresistible Impulse Rule; 3) The Durham Rule; 4) The American Law Institute Formula (ALI); 5) Curren's Rule.

While language in some of the formulations is similar; there are differences in meaning and semantic nuances. Rhode Island has recently (1978) adopted a variation of the American Law Institute Formula. In any serious crime there are two essential components: 1) voluntary conduct (*actus reus*); 2) intent (*mens rea*). Focus should be on the criminal rather than the crime.

M'Naghten Rule: The basic Anglo-American rule of criminal responsibility is the M'Naghten Rule. This formula dates back to 1843 when Daniel M'Naghten, believing that he was assassinating the Prime Minister of England, shot and killed the Prime Minister's secretary, Edward Drummond. M'Naghten was acquitted on the grounds of insanity. As reported by Morris, twenty states still retain the M'Naghten test, three by legislative enactment and seventeen by judicial decision. The rule is: To establish a defense on the ground of insanity, it must clearly be proved that, at the time of committing of the act, the party accused was laboring under such a defect of reason from disease of the mind, as not to know

the nature and quality of the act he was doing; or, if he did know it, that he did not know he was doing what was wrong. The test consists of two essential parts: 1) It must be clearly established that he/she has a disease or defect of the mind; 2) that as a result of such a defect of reason from the disease of the mind one of these things are true — defendant does not know the nature of the act, he does not know the quality of the act, or he does not know that it is wrong. After it is determined that the defendant has a major cognitive defect, it must then be established that the defendant had knowledge of the nature of the act, which means that the defendant can perceive the physical characteristics of his act, and the quality of his act, or the “harmfulness” of his act. He must have knowledge that the very act with which he is charged is wrong and not just knowledge of the difference between right and wrong generally, or about other types of acts. It implies that he knew society considered the act wrong and not that just he himself considered it wrong. Major critics of the M’Naghten Rule maintain that it places too much emphasis on knowing or the cognitive capacity. Furthermore, many psychiatrists believe that the M’Naghten Rule in its basic issue of right and wrong requires a moral judgment by the psychiatrist, a judgment outside his professional training, experience, and competence. These views led to an unrelenting search for a formula.

Irresistible Impulse Rule: This rule was formulated in an effort to modify the harshness of the M’Naghten Rule. A number of states operating under the M’Naghten Rule extended the ground of insanity plea through the Irresistible Impulse Rule. Seven states have adopted Irresistible Impulse as a supplement to the M’Naghten Rule. The defendant may have known that what he was doing was wrong, but may nevertheless have been unable to resist an overwhelming impulse to commit the crime. In 1897, when originally formulated it read: “Though conscious of (the nature of the act he is committing) and able to distinguish between right and wrong, and knowing that the act is wrong, yet his will (that is), the governing power of his mind, has been otherwise so completely destroyed that his actions are not subject to, but are beyond his control.” Its scope is rather broad enough to include psychotic, psychoneurotic, and even antisocial (psychopathic) personality, although in some states only psychotic impulses are grounds for acquittal. Although, on the surface, it would appear to have solved the

strictures of the right and wrong test, in actual practice this has not been so. The irresistible concept raises an extremely difficult question; that is, how can one differentiate between an impulse that was truly irresistible and one that simply was not resisted? The policeman-at-the-elbow test is then asked: “Would the defendant have committed this act if a policeman were standing next to him at the time?” It is quite likely that, when there is evidence of premeditation and planning, demonstrating a well-reasoned behavior or reasoned intent, the irresistible impulse test will not stand up. A number of psychiatrists consider that this test takes into full account the psychologic reaction of mentally ill offenders.

The Durham Rule: This rule is based on the principle of the New Hampshire rule of 1869. The Durham Rule simply states: “An accused is not criminally responsible if his unlawful act was the product of mental disease or mental defect.” It expressly states that its purpose is to open the inquiry to the widest possible scope of medical or psychiatric testimony. Although the Durham Rule was heralded with enthusiasm and the American Psychiatric Association has commended Judge Bazelon of the United States Court of Appeals for the District of Columbia who formulated this rule, it resulted in confusion and a plethora of appeals. The chief objections and confusion were the uncertainties of the definition of “mental disease or defect in particular to whether the personality disorders are true mental disease and as to the meaning of the word ‘product.’” Because mental disease, according to this rule, is not judicially defined, it means in any given case whatever the expert witnesses say it means. How much variance must be present and how can it be explained in language that the jury can understand, so that it can formulate a concept that is definite and translate that concept into a verdict? Finally, the product test can introduce the controversy of psychic determinism versus free will. Is every criminal act related to a mental disorder, so that it would lead to the exculpation of sociopaths or psychopaths from criminal liability? It seems apparent that the Durham Rule is so broad that all criminal action can be considered to be the product of a diseased mind. The states of Maine, Utah, and West Virginia use the Durham Rule as a guideline for insanity tests.

The American Law Institute Formula: For a period of ten years (1952 to 1962), the American Law Institute (ALI), supported by the American Bar Asso-

ciation and other legal organizations, has worked to unify the innumerable variant state practices in criminal law. The ALI has formulated the following rule of criminal responsibility: 1) A person is not responsible for his criminal conduct if, at the time of such conduct, as a result of mental disease or defect he lacks substantial capacity to appreciate the criminality of his conduct or to conform his conduct to the requirements of the law; 2) The terms *mental disease* or *defect* do not include an abnormality manifested only by repeated criminal or otherwise antisocial conduct. The trend at present is towards the ALI code, which is favored by the Committee on Psychiatry and Law of the American Psychiatric Association. One federal circuit and four states adhere to the original ALI formulation. Five federal circuits and three states, which include Rhode Island (since 1978), have adopted the ALI Rule, except that the word "wrongfulness" is used instead of "criminality." The acceptance of the ALI is received on both the federal and state level throughout the country.

The chief objection to the ALI Rule, especially among psychiatrists and even among consultants who drafted the ALI code, is the limiting clause of Section (2). This exclusionary provision appears to discriminate against the poor as opposed to well-to-do offenders. The poor defendant is given a more cursory and routine psychiatric evaluation and is likely to be dismissed as sane, having only his criminal behavior as evidence of abnormality. On the other hand, the defendant who is well-to-do and able to pay for a private psychiatrist to make a more searching inquiry into his mental state is much more likely to obtain proof of psychopathology of his mental abnormality other than the criminal behavior. Psychiatrists are in agreement that mental disease or defect cannot be defined properly by legislation, but must be decided by scientific and professional standards.

Currens Rule: This rule is a modification of the American Law Institute Formula. It was written in a comprehensive, scholarly manner by Judge John Biggs, Jr. of the United States Court of Appeals for the Third Circuit in the Currens case. The phrase in the ALI Formula "to appreciate the criminality of his conduct" was considered redundant and superfluous. Judge Biggs affirmed that the law is not and should not be concerned with the definition of mental disease. Such definition belongs to the psychiatrist. If psychiatry accepts disorders such as sociopathic personality (antisocial personality) as a type of

mental illness, then the only question for a court of law to address is whether the illness or disease was of such degree and type that it rendered the defendant unable to conform his conduct to the requirements of the law. If so, the defendant must be found to be insane, whether he be psychotic or sociopathic. The Currens Rule thus reads: "The jury must be satisfied that, at the time of committing the prohibited act, the defendant, as a result of mental disease or defect, lacked substantial capacity to conform his conduct to the requirements of the law which he is alleged to have violated." Among all the rules for criminal responsibility, the Currens Rule is considered to be the most advanced concept. If a defendant with any mental abnormality is incapable of behaving in a law-abiding manner, he does not possess the *mens rea* (the guilty mind) requisite for the imposition of criminal sanctions. The defendant in such a case should be treated as sick and not punished by society as a criminal. It is speculated that, if state courts which handle the great bulk of criminal cases in this country adopted the Currens Rule, a very large proportion (50 per cent or more) of the present population of our prisons would be "not guilty by reason of insanity." They would have to be confined and treated in mental hospitals, which are ill-equipped to cope with such a large influx of patients requiring primary custodial care and security precautions.

Conclusion

There has been an increase in the number of successful insanity pleas since the 1950s. For example, the New York State Department of Mental Hygiene confirms that there has been a 500 per cent increase in the number of "not guilty by reason of insanity" trials during the period from 1971 to 1976, as compared to 1965 to 1971. Though reasons for the increase have not been established, it appears that the adoption of a variant of ALI Rule in 1965 (modifying the M'Naghten Rule) in New York is said to have given psychiatrists a much greater opportunity to express their views as expert witnesses, and has been a factor in the increase of "not guilty by reason of mental disease" verdicts. The change from the M'Naghten Rule to the ALI Rule in Rhode Island occurred in 1978. There has not been as yet a significant increase in the number of the "not guilty by reason of insanity" pleas in Rhode Island.

Some forensic psychiatrists consider the insanity defense as a legal fiction devised to avoid the carrying out of the death penalty in seriously

mentally disabled offenders, or is but one of a variety of excuses allowed in criminal law. Many judges and prosecutors see it as a mechanism to trigger and terminate detention, whereas defense attorneys see it as an alternative to a mandatory lengthy period of imprisonment. Originally it was intended to apply to the most seriously psychotic individuals charged with capital crime. It is now claimed mainly by defendants charged with crimes which do not carry the death penalty, who are mildly mentally ill, or sometimes not mentally ill at all. It appears that the pendulum has started to swing from a conservative criminal responsibility test (M'Naghten Rule) to a more liberal one (ALI Rule). In fact, an even more "liberal" legal defense of diminished capacity is now allowed in half of the fifty states. The doctrine of diminished capacity or responsibility was a part of the Homicide Act enacted in England in 1957. This law had been in effect in Scotland since 1867. The jury, as instructed by the court, can within its discretion return a lesser degree than first degree murder if it believes the defendant's mental disability would be adequate justification for the lesser verdict. California has very recently banned the legal defense of diminished capacity in view of public outrage following the greatly publicized lengthy trial of the murderers of San Francisco Mayor George Moscone and Supervisor Harvey Milk in 1978, popularly known as "Twinkie Defense." Will the search go on for an ideal formula?

Whether we are performing a competency ex-

amination or testifying for criminal responsibility, psychiatrists must bear in mind that we can effectively present knowledge to assist the court in mutual respect for the law to safeguard the rights and interests of both the individual and society.

References

- ¹ Slovenko R: Law and psychiatry, in Kaplan HI, Freedman AM (eds): *Comprehensive Textbook of Psychiatry*, ed 3. Baltimore, Williams & Wilkins, 1980, pp 3054-3060.
- ² Curran WJ, McGarry AL, Petty CS: *Modern Legal Medicine, Psychiatry & Forensic Science*. Philadelphia, Davis Co, 1980, pp 750-758.
- ³ Competency to stand trial and mental illness; final report, September 1, 1966-June 30, 1972. Crime and delinquency monograph series. Rockville, MD, National Institute of Mental Health, Center for Studies of Crime and Delinquency, 1974.
- ⁴ Misuse of psychiatry in the criminal courts: Competency to stand trial. Group for the Advancement of Psychiatry, report 89, vol 8, February 1974.
- ⁵ Diamond BL: Psychiatry and the criminal: part 1. Rules of criminal responsibility of the mentally ill. *Postgraduate Medicine* 36: A46-A54, Aug 64.
- ⁶ MacDonald JM: Psychiatry and the criminal: part 2. The psychiatrist on the witness stand. *Postgraduate Medicine* 36: A66-A70, Sep 64.
- ⁷ *State v Johnson*, 119 RI 749, 1978.
- ⁸ Standards for criminal responsibility, Study #309. NASMHPD Studies, National Association of State Mental Health Program Directors, Apr 76.
- ⁹ Myers HH: RI criminal responsibility: Search for a formula. *RI Med J* 51(2):114-117, Feb 68.
- ¹⁰ Halpern AL: The fiction of legal insanity and the misuse of psychiatry. *J Leg Med* 1(4):18-74, Apr 80.

853 Smith Street
Providence, RI 02908



The Committee for Studies on World Interdependence, Brown University, in conjunction with the Rhode Island Nuclear Arms Referendum Committee invites Rhode Island doctors . . .

to attend an address by John O. Pastore, Jr., MD

“What Do the Russians Think About Reduction of Nuclear Armaments?”

Introduction by Senator John O. Pastore

Comments by Charles S. Stevenson, MD on Nagasaki victims

Place: Sayles Hall, Brown University

Date: October 27, 1982

Time: 8 pm

(Dr. John O. Pastore, Jr. is the Director of the Non-Invasive Laboratory, Department of Cardiology, St. Elizabeth's Hospital, Boston, Massachusetts; and Associate Professor of Medicine, Tufts University School of Medicine, Boston, Massachusetts.)

Women's Auxiliary to the Rhode Island Medical Society

A History of Thirty-five Years of Service

Maria-Elena Cassiet
Charlotte E. Egan

Rhode Island was the last of the colonies to ratify the Federal Constitution and became the thirteenth state to join the Union — in 1790. She also remained among the last few to form a women's auxiliary to the state medical society — in 1947.

When the question of forming an auxiliary arose, because of Rhode Island's small size and dense population around Providence, it was feasible to invite all the physicians' wives to a single meeting. Therefore, Doctor Herman Pitts, President of the Rhode Island Medical Society (RIMS), after presenting a resolution to the RIMS House of Delegates and winning their approval, called an organizational meeting for February 5, 1947, which became official birthday of the Women's Auxiliary to RIMS.

Maria-Elena Cassiet has been for several years a member of the Kent County Medical Society auxiliary, and recently has been appointed official historian for the women's auxiliaries statewide. She is the wife of Doctor Alfredo C. Cassiet.

Charlotte E. Egan was a charter member of the original state women's auxiliary, and presently is a member of the Providence Medical Association women's auxiliary. She is a former member of the board of directors of the national AMA women's auxiliary, and former eastern regional chairman of the AMA-ERF. She is the wife of Doctor Thomas A. Egan.

In response to his invitation, almost 200 physicians' wives gathered at the society's headquarters on Francis Street in Providence, to hear Doctor Pitts outline the need for an auxiliary to the RIMS. Mrs. James Raglan Miller of Hartford, Connecticut shared the experience of the Connecticut auxiliary, formed in 1946, and spoke on behalf of the National Auxiliary. A show of hands demonstrated unanimous support in favor of forming an auxiliary.

A temporary slate of officers was approved and a later meeting validated and permanently elected Mrs. Herbert W. Harris as President. One year later (1948) The Lillian Winsor Harris Scholarships in nursing were established, honoring the first president for her contribution to the fledgling organization.

A constitution and bylaws were drawn, discussed, amended, and passed. Objectives followed closely those set up by the National Auxiliary:

- 1) To extend the aims of the medical profession to all organizations which look to the advancement of health and health education.

- 2) To cultivate friendly relations and promote mutual understanding among physicians' families.

- 3) To participate in any endeavor on the request of the Rhode Island Medical Society.

- 4) To coordinate and advise the activities of component auxiliaries.

When the Society first was formed, it was considered unnecessary to organize county compo-

nent auxiliaries because of Rhode Island's compact size. Even in 1947, before the interstate highway system was built, no corner of Rhode Island was farther than an hour's drive from the Capitol.

By May of 1949 there were 296 members. The early years reflected the concerns of the nation in the Cold War and threat of Communism. Civil defense and socialized medicine were major concerns of the auxiliary's Speakers Bureau, whose classes trained auxiliary women to reach the community on these issues.

Also, during the early years, rummage sales financed nursing scholarships. The Biltmore Hotel was the scene of the first formal dinner-dance, and other fund-raising activities provided money for scholarships and contributions to the American Medical Association Education and Research Foundation (AMA-ERF).

The Auxiliary helped to organize the first Diabetic Fair, held at the Medical Society's Building in 1951. It served 500 people and became an annual event reaching 5000 in 1973. Wives who were nurses participated in testing, others registered and processed the incoming crowds.

Establishment of Component Societies

Strong local feeling and desire to organize resulted in the funding of the component society auxiliaries on the following dates: January 30, 1951 — Woonsocket District Medical Society Auxiliary; October 19, 1954 — Kent County Medical Society Auxiliary; February 27, 1959 — Pawtucket County Medical Auxiliary; January 18, 1961 — Newport County Medical Auxiliary; and March 4, 1971 — Providence County Medical Auxiliary.

These component societies cooperated with such state programs as vision screening, measles inoculations, Salk and Sabin vaccine clinics, and diabetes screening. In addition, Woonsocket reached out to youth in nurse recruitments, Newport concerned itself with aid to Vietnamese orphans, Pawtucket conducted pre-school vision screening and rubella inoculations, while Kent County collected used eyeglasses for the needy.

Programs

The state auxiliary sponsored television programs on home nursing following the influenza epidemic of 1956 on WJAR-TV Channel 10, leading to radio announcements and weekly shows called "The World of Health" starting in 1961. Topics included medical quackery and fads, blindness, winter health precautions, aging, plastic surgery, medical civil defense, foreign aid, deafness, poisons, diabetes, and polio.

A major concern was the threat of poliomyelitis. Those who grew up in the 60s and later do not know the terror of those summer months when polio indiscriminately struck children and young adults. The Salk vaccine introduced a major breakthrough. In 1957 the Auxiliary urged members to be leaders in the "All Out — All Ages Polio Elimination Program," where Salk vaccine was administered to adults. In Woonsocket, group inoculations were channeled through the PTA and nurses organizations. When the Sabin oral vaccine appeared, clinic visitors numbering 583,400 took the little sugar cubes in January of 1963. A "Mop-Up Clinic" on April 29, 1963 protected 13,600 more. Auxiliary members distributed posters and window streamers to publicize the program well before the dreaded summer season approached.

The "End Measles" campaign opened thirty-seven clinics all over the state on January 19, 1966. A measles clinic from November 17 to 26, 1969 had nineteen teams assisting doctors over eight days. Approximately 6,392 children received the vaccine.

German measles, or rubella, poses a threat to pregnant mothers and the unborn child. The Nation's first statewide mass inoculation program was instituted in Rhode Island in 1969 using a vaccine that had been licensed only the previous year. Eighty per cent of children aged 5 to 11 were immunized in school clinics. Auxilians who were nurses assisted at clinics in Warwick, West Warwick, East Greenwich, Pawtucket, and Newport. A certificate of commendation was presented to the Women's Auxiliary to the Rhode Island Medical Society by the Governor.

Cooperation with other societies was considered an important role of the Auxiliary, particularly in the educational and informational field. Many participated in meetings of the Rhode Island Tuberculosis and Respiratory Disease Association in an air quality conference (1971). Blindness prevention through glaucoma detection clinics were supported. With the Rhode Island Heart Association, cardiopulmonary resuscitation (CPR) was taught and encouraged. In cooperation with nursing groups, career-oriented materials were distributed in schools.

The Auxiliary group was active not only in the distribution of the "How to" packets obtained from the National Office and the nation's health organizations, but also published its own materials. Two outstanding items were *Opportunities in the Allied Medical Sciences for Student Guidance* (1957) and *Advice to the Doctor's Widow*, prepared

by the Women's Auxiliary to the Kent County Medical Society (1968). The state newsletter was first published in printed form in 1958.

A main goal of fund raising was the scholarship grants to students in the nursing field in accredited Rhode Island hospitals. As the hospitals phased out their schools of nursing, those pursuing their careers in colleges and universities and in need of financial aid were eligible, as were students in paraprofessional or allied health career fields. Scholarship aid between the years 1963 and 1973 amounted to \$11,699.

AMA-ERF

The American Medical Association Education and Research Foundation (AMA-ERF) was a major recipient of the Auxiliary's time and effort since the time it was established at the Cleveland Meeting of the AMA House of Delegates in December 1950.*

The purpose of this foundation was and is to seek financial support for needs: funds for medical schools and student loan guarantee fund. In an effort to provide more physicians to meet the ever-increasing demand for health services, more and larger facilities, additional equipment and more faculty members are needed. These funds are given to medical schools for unrestricted use by the deans to solve their most pressing financial needs.

Financial aid for the medical student is a necessity too. A student may have a family to support or he may come from a low income, disadvantaged economic background, and financial aid can mean the difference between a degree or not. These funds are available also to hospital residents and interns. Since banks charge a high interest rate and often consider students poor risks for potential loans, the AMA-ERF insures loans by guaranteeing repayment to the banks involved. As a result of the AMA-ERF, approved banks put another \$12.50 to work for each dollar contributed to the loan guarantee fund. An important factor regarding the operation of this foundation is that AMA pays all overhead expenses, thus guaranteeing that every dollar donated goes directly into the work of the foundation.

The Auxiliary has been a staunch supporter and contributor to AMA-ERF, donating funds raised by Christmas card sales, international buf-

fet nights, auctions, sale of gift items, luncheons and dances, use of memorial cards, and outright donations.

All direct donations to AMA-ERF are credited to the medical school of the donor's choice. If unspecified, it is credited to the unrestricted fund, which, at the close of the fiscal year is divided and allocated to approved medical schools. Recipient of the unrestricted funds in Rhode Island is the Brown Medical School.

Legislative Activities

The Legislation Committee was active from the start in scrutinizing state legislation of concern to public health and the medical profession. The National Auxiliary was vigilant in education of all of its members on legislation problems and trends throughout the nation.

Fun Events

While these serious worthwhile programs were being pursued, auxiliaries had fun with fund-raising parties, dances, and fashion shows with such representative titles as "Fall Fling," "Hofbrau," and "Hawaiian Frolic." Hobby shows exemplified the varied interests and talents of wives and their physician husbands. A silly hat fashion show of fire engines, ladders, and kitchen stoves was a pedagogical exercise in accident prevention reminiscent of the humorous interludes in movie newsreels. The sale of Christmas cards soon developed into a major source of income as well.

Responding to Social Change

Social awareness in the sixties led to concern for international care. Three tons of sample drugs and used instruments were collected from offices throughout the state for missions and medical relief organizations for overseas distribution.

As life nationally and internationally became more complicated, the auxiliaries responded to the ages of Vietnam, Watergate, and the sexual revolution. A committee on mental health became more active, taking an interest in the local Exeter School (now Ladd School). Drug abuse among teenagers led to educational literature, films, and seminars to junior and high school students.

By this time the women's movement was active. Auxiliaries' first names began to appear in reports. They were going back to college and implementing the use of their special skills. Classes were given by an auxilian with training in teaching English as a second language. These

* In its early years the AMA-ERF was the American Medical Association Education Fund (AMAEF). It was given its present name in 1962 by the combining of two formerly separate foundations.

women taught in the "Learn American Project" where colloquial American English was introduced to physicians, staff, and their families to help bridge the language barrier.

The combination of the change in women's role and the great success of the local component societies led to difficulties in the state structure of the auxiliary. Leaders were not available or were not interested. Problem solving meetings with past presidents produced no solution.

In May 1976, at the final Executive Board meeting, it was recommended that the state Auxiliary be dissolved. Reluctant to accept the loss of the Rhode Island membership, the National Auxiliary offered its fullest cooperation to the four active counties of Woonsocket, Kent, Newport, and Providence. A direct line of communication between National/Regional officers and their respective counterparts at the county level was established and the county officers or representatives were included in invitations to attend all pertinent National/Regional conferences, seminars, or meetings.

The Auxiliaries Today

The three active counties/districts — Kent, Providence, and Woonsocket — function independently and also in cooperation with each other in projects and meetings. They meet in joint committee session for the purpose of planning representation at National/Regional meetings, seminars, and conferences. Four past state presidents, one of whom is state AMA-ERF chairman, act in an advisory capacity. The fourth county/district, Pawtucket, is in the process of reorganization.

Woonsocket continues in active community service. Cooperating with the Rhode Island Heart Association, members volunteer for their blood pressure screening program at various malls, help with the nursing home patient outing annually, and sponsor fund-raising projects for

scholarships in the medical, paramedical, and allied health professions. The annual International Night, a fun and work night, provides the revenue for these activities, while the community Christmas card poster placed in the two hospitals makes possible their generous contribution to AMA-ERF.

We are now in the age of the specialist. Although we have better roads and labor-saving devices, there is less leisure time. The women of the past who worked so hard at rummage sales saw the nursing schools at local hospitals disappear and departments and programs at universities replace them. National drives for medical education aid continue. The rise of paramedical programs led to scholarships to both men and women outside the fields of medical and nursing schools. Will a television program today accept speakers without degrees in specialized areas? They look to people with credentials.

As Providence lost its central role in the Women's Auxiliary to the Rhode Island Medical Society, it also lost its role as shopping center for the state. Large malls, here as in the rest of the country, enticed people away from the old centers with the promise of ample parking and new, sparkling environments. But now, we are approaching the age of limited resources. The retired and the young are attracted by condominiums in the city and centralized conveniences. The high cost and uncertain supply of fuel will limit long drives to huge shopping malls and the central city of Providence and its like throughout the nation will attract rather than repel. We can see the role of the Providence component growing. Ambitious plans for the revitalization of the central city are already underway, and as Providence looks to the future, the Women's Auxiliary will be there to grow, adapt, and meet the needs of the future, as it has in its proud history of thirty-five years' achievement. ■

HOW TO SURVIVE PROSPERITY.

As any business grows, it stands to reason that its prosperity should increase. Unfortunately, this doesn't always happen. Because, very often, busy professionals can ill afford the time necessary for truly effective financial management and record-keeping.

At Levin and Parness, we understand. We're an accounting firm whose business it is to advise people on how to manage their business and personal finances for maximum effectiveness.

We can offer a wide range of services. Everything from setting up financial records to billing procedures to collection techniques. From tax planning to retirement benefits. From income taxes to payroll taxes. And all of our services give you the kinds of tools you need for better planning and maximized opportunities. While making minimal demands on your time and energy.

If you'd like to know more about how we could be useful to you, please call. We'll be happy to analyze your procedures and to suggest improvements.

Then you can quickly tell what your chances are of surviving prosperity long enough to enjoy it.

LEVIN
AND
PARNESS

Levin and Parness, Inc., Certified Public Accountants, 24 Mutual Place, Providence, RI 02906, (401) 273-6650

PROFESSIONAL RECORD STORAGE & RETRIEVAL

Cheaper Than Microfiche???

IF YOUR FIRM NEEDS A CENTRALLY LOCATED
LOW COST ANSWER TO INACTIVE RECORD
STORAGE WE JUST MIGHT BE THE SOLUTION.

An 8'x10' Locked, Sprinkled and Secure Enclosure
For Just \$30 Per Month — Larger Areas Available

NEED A PICK-UP AND DELIVERY SERVICE? STORAGE FILES?
WE CAN HANDLE THAT TOO!

FOR CONFIDENTIAL RECORD STORAGE
and RETRIEVAL AT UNBELIEVABLY LOW COST

CALL

MANTON INDUSTRIES

351-9000

NOW FOR PARTICULARS

**RHODE ISLAND HOSPITAL
AND
CIBA PHARMACEUTICAL COMPANY
ANNOUNCE A
MEDICAL HORIZONS PRESENTATION**

**NEW CONCEPTS IN THE
DIAGNOSIS AND TREATMENT
OF DEPRESSION IN
MEDICAL PRACTICE**

Saturday, November 6, 1982

Providence Marriott Inn

Phone Denise Brown at 277-5291
for registration information

The Rhode Island Historical Society
presents:

Deck the halls

The John Brown House
Holiday Decoration Tour

52 Power St. Providence, R.I.

Gala Opening: Friday, December 3; 6 – 8 p.m.
\$15.00 per person \$25.00 per couple

Tours: December 4 – 12; 11 a.m. – 5:30 p.m.
\$5.00 adults, \$1.00 children under 12.

For tickets and information call 331-8575.

Chalet — For Rent or Sale

5 bedroom all year round chalet overlooking Gunstock Mt., Gilford, NH above Lake Winnipaw-sakee. For sale (all furnished) \$89,000 or for rent for the coming winter season (December 15 thru March 31) at \$3000 plus utilities and \$1000 damage deposit.

Call (401) 732-0880

**PARK AVE. PROFESSIONAL BLDG.
1020 Park Avenue
Cranston, R.I.**

Modern completed medical office suite available, including 3 examining rooms, lab room, private office, reception room, clerical office, with all facilities. 1144 sq. ft.

353-5555

Rhode Island Medical Journal

November 1982
Volume 65, Number 11

EMTs in
Rhode Island
See pages 449, 463

U.C. SAN FRANCISCO
LIBRARY
DEC 01 1982




CONTRIBUTIONS

- 463 Emergency Medical Technicians: An Overview
- 467 Realism in Health Maintenance — Part I
- 473 Hospitalization for Tuberculosis
- 441 NEWSLETTER
- 449 EDITORIALS
- 451 EDITOR'S MAILBOX
- 455 NECROLOGY

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM® diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT



ROCHE

Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect.

Adults: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500,* Prescription Paks of 50, available in trays of 10,* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.‡

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110

PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

Providing Diagnostic X-Ray and
EKG Services to:

- *Nursing and Convalescent Homes
- *Shut ins and Private Home Patients
- *Post Surgical Patients

Our service is certified by the R.I.
Department of Health. Reimbursement
is provided by Medicare, R.I. Blue
Shield and Medical Assistance.

**Same Day Examination
and Reporting
24 Hour Service
7 Days a Week**

*“To Some People We’re
More Than A Service.”*



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Rhode Island Medical Journal

November 1982
Volume 65, Number 11

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settupane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Maurice M. Albala, MD

Paul Calabresi, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Melvin D. Hoffman, MD
President

Leonard S. Staudinger, MD
Vice President

Milton W. Hamolsky, MD
Secretary

Charles P. Shoemaker, Jr., MD
President-Elect

Kenneth E. Liffmann, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

Elie J. Cohen, MD
Newport County Medical Society

Constantine G. Demopoulos, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society



easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes



Pediatric Drops

100 mg/ml
10-ml size

Keflex®

cephalexin

Additional information available
to the profession on request.



000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

TABLE OF CONTENTS



441	NEWSLETTER
449	EDITORIALS
	Continuing Advancement of Public Health Practice
	Improvement of EMS in Rhode Island

451	EDITOR'S MAILBOX
	Proposed Changes at Rhode Island Hospital

455	NECROLOGY
-----	------------------

CONTRIBUTIONS

463	Emergency Medical Technicians: An Overview
	<i>Support and Involvement of Physicians Is Necessary for the Design and Implementation of a Paramedic Program</i>
	Glenn W. Mitchell, MD
467	Realism in Health Maintenance — Part I
	<i>Certain Fallacies in the Conventional Wisdom Regarding Nutrition and Life Style Are Presented</i>
	Alex M. Burgess, Jr., MD William H. Meroney, MD
473	Hospitalization for Tuberculosis
	<i>Hospital Stay Is Prolonged by Delay in Considering Diagnosis and by Non-TB Problems</i>
	Gerald A. Faich, MD, MPH Robert Mullan, MD

When your overweight patients seek your help with a weight reduction plan...



The benefits will outweigh the risks when you prescribe MELFIAT[®] 105

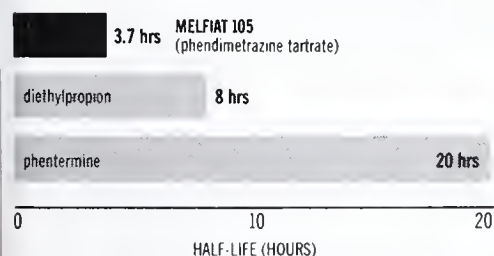
Because MELFIAT 105 effectively controls appetite.

MELFIAT 105 (phendimetrazine tartrate), an effective anorexiant, provides the appetite control overweight patients often need to begin a successful program of weight reduction. And the positive results of initial short-term therapy with MELFIAT 105 can help motivate them to a lifelong commitment of weight control.

Because MELFIAT 105 has a 3.7 hour half-life and low abuse potential.

Therapeutic efficacy combined with a short half-life and minimal abuse potential make MELFIAT 105 the drug of choice in the treatment of exogenous obesity. Because MELFIAT 105 has a short half-life, it minimizes drug accumulation and helps to eliminate such effects as disturbed sleep patterns. And, because MELFIAT 105 has significantly lower abuse potential than the amphetamines¹, there's less risk to your patients. According to a NIDA (National Institute on Drug Abuse) report, phendimetrazine appears to be the least abused anorexiant when compared to phentermine and diethylpropion².

Half-life comparison of MELFIAT 105 and other anorexiant²



MELFIAT[®] 105 UNICELLES[®] C^{III} (phendimetrazine tartrate) Sustained-Release Capsules 105 mg

Because MELFIAT 105 is in a sustained-release capsule.

MELFIAT 105 provides your patients with continuous drug delivery for appetite control that lasts throughout the day and helps to eliminate compulsive snacking and overeating at meals. In addition, the sustained-release capsule form maintains more constant blood levels of MELFIAT 105... without peaks and valleys.

Because MELFIAT 105 offers convenient, once-a-day dosage.

MELFIAT 105 is available in a convenient capsule containing 105 mg. The simple morning dosage regimen is designed to encourage compliance, minimizing the chance of missed doses and assuring optimum therapeutic results.

Because MELFIAT 105 is from Reid-Provident Laboratories, Inc. Reid-Provident has the highest standards of quality to assure that only the finest products reach you. An advisory board of research scientists, physicians, pharmacists, and other technical staff continually review existing products and new product proposals to make sure that the latest pharmaceutical technology is used in their design and manufacture. That's because Reid-Provident is committed to you and your patients.

For more information please write to Reid-Provident Laboratories, Inc.
640 Tenth Street, N.W.
Atlanta, Georgia 30318

References: 1. Sheu YS, Ferguson JA, Cooper JR: *Evaluation of the Abuse Liability of Diethylpropion, Phendimetrazine, and Phentermine*, unclassified document ADAMHA, HHS. Office of Medical and Professional Affairs, NIDA, 1980.
2. Douglas JG, Munro JF: The role of drugs in the treatment of obesity, *Drugs* 21:362-373, 1981.

MELFIAT[®] 105 UNICELLES[®] C^{III}

(phendimetrazine tartrate) 105 mg Sustained-Release Capsules

INDICATIONS AND USAGE: Melfiat[®] 105 (phendimetrazine tartrate) is indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight-reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high-dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

USAGE IN PREGNANCY: The safety of phendimetrazine tartrate in pregnancy and lactation has not been established. Therefore, phendimetrazine tartrate should not be taken by women who are or may become pregnant.

USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure.

Central Nervous System: Overstimulation, restlessness, dizziness, insomnia, euphoria, dysphoria, tremor, headache; rarely psychotic episodes at recommended doses.

Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, other gastrointestinal disturbances.
Allergic: Urticaria.

Endocrine: Impotence, changes in libido.

OVERDOSAGE: Manifestations of acute overdosage with phendimetrazine tartrate include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states.

Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma. Management of acute phendimetrazine tartrate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Acidification of the urine increases phendimetrazine tartrate excretion. Intravenous phentolamine (Regitine) has been suggested for possible acute, severe hypertension, if this complicates phendimetrazine tartrate overdosage.

DOSAGE AND ADMINISTRATION: Since Melfiat[®] 105 (phendimetrazine tartrate) 105 mg is a sustained-release dosage form, limit to one sustained-release capsule in the morning. Melfiat[®] 105 (phendimetrazine tartrate) is not recommended for use in children under 12 years of age.

HOW SUPPLIED: Each orange and clear sustained-release capsule contains 105 mg phendimetrazine tartrate in bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.



Reid-Provident Laboratories, Inc.
Atlanta, Georgia 30318

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, passwords and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indispensable element in Business Insurance . . . *Personal Service* by an agent who knows you and your business.



Everyone's talking
about helping patients
understand their
prescription medication...

with your help,
Roche has been doing
something about it



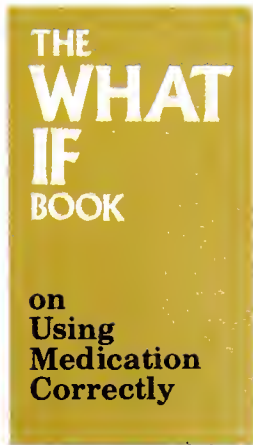
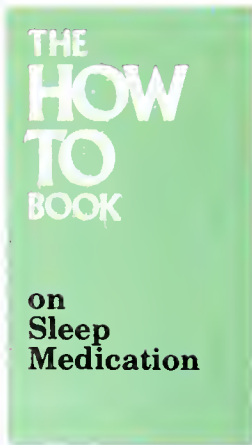
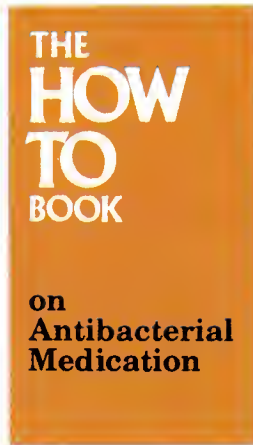
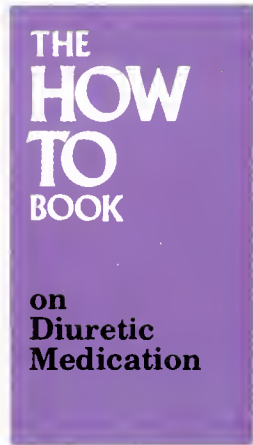
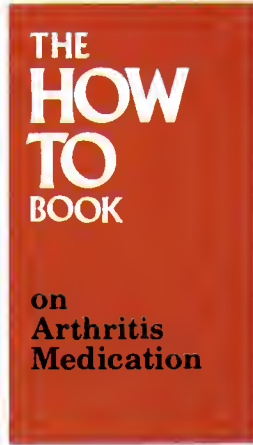
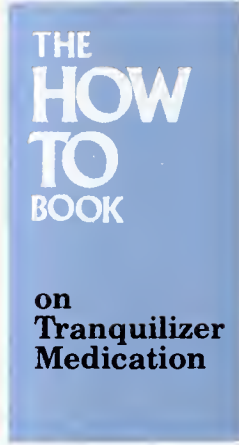
WHAT IF

Roche Laboratories followed up the production and free distribution of 24 million copies of the Medication Education *WHAT IF Book* to patients via physicians, pharmacists and other health care professionals with a new series of booklets on important classes of medicines. The new booklets can be used with your patients to supplement your directions on

HOW TO

- Use these classes of medicines appropriately
- Ensure maximum benefits from their proper use
- Avoid risks that can follow their misuse

Check below for free supply of booklets desired; complete coupon and mail to Professional Services Department, Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110.

					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Roche Laboratories
Division of Hoffmann-LaRoche Inc.
Nutley, New Jersey 07110

NAME _____

STREET ADDRESS _____

CITY _____

STATE _____

ZIP _____

Medicines that matter from people who care

PRINTED IN U.S.A.

Newsletter

November 1982

Melvin D. Hoffman, MD, Editor
Karen Challberg, Associate Editor

DO YOU KNOW AN IMPAIRED PHYSICIAN?

According to a report published recently by the Department of Mental Health of the American Medical Association, treatment of physicians for alcohol addiction shows favorable outcome in 83 per cent of cases, and treatment of physicians for drug addiction shows favorable outcome in 95 per cent of cases. Also, 71 per cent of physicians entering treatment return to the active practice of medicine. If you know of a physician who needs an advocate and support in obtaining necessary treatment and help, please contact the Impaired Physicians Committee, Rhode Island Medical Society, 106 Francis Street, Providence, RI 02903 (401) 331-3207. The Committee handles referrals in complete confidence.

FROM THE COUNCIL...

- . An action was taken to approve a statement on statutory and ethical principles relating to physicians' handling of their medical records.
- . An action was taken to approve the recommendation of the Scientific Work and Annual Meeting Committee to hold the Charles V. Chapin Oration in conjunction with the New Hampshire Medical Society annual meeting in Newport in June, 1983.
- . A resolution was approved that the Rhode Island Medical Society supports the efforts of Women & Infants Hospital to improve its capabilities to care for mothers and infants by affiliation with a general hospital.
- . An action was approved to recommend to the House of Delegates adding the mental health rider coverage to the plan for all enrolled Rhode Island Medical Society staff and physicians.
- . An action was approved to authorize attendance at the AMA Interim Meeting in 1982 by the President, President-Elect, Delegates, Alternate Delegate, and Executive Director.

EDGAR S. POTTER MEMORIAL FUND

Mrs. Margaret E. Potter, wife of the late Edgar S. Potter MD, has bequested \$5000 to the Rhode Island Medical Society in memory of her late husband. The bequest will be held as the Edgar S. Potter Memorial Fund, with income to be used by the Society as it may designate.

COMMISSIONS AND COMMITTEES 1982-1983

At the meeting of the Council held June 9, 1982 the President was authorized to establish five commissions to oversee and assist committees. There will be a chairman and several members of each commission who will report on committee work to the Council. Commissioners and committee chairmen appointments for 1982-1983 are as follows:

Health and Education

Commissioners: Edward Asprinio MD (Chairman), Ronald M. Gilman MD, Vincent Iacono MD, Henry F. Izeman MD, Mohammad Khan MD, Richard G. Mignacca MD, Richard Wong MD. Committee Chairmen: Johannes Virks MD (Aging), Francis J. Cummings MD (Cancer), Betty B. Mathieu MD (Child School Health), Lewis Arnow MD (Educational and Scientific Board), Lorand Brown MD and John Grady MD (Perinatal), Henry T. Randall MD (Scientific Work and Annual Meeting), Geret A. Dubois MD (Trauma), Louis Vito, Jr. MD (Medical Economics).

Internal Affairs

Commissioners: Charles P. Shoemaker, Jr. MD (Chairman), Robert L. Curran MD, Richard D. Frary MD, Peter L. Mathieu Jr. MD, Anthony F. Merlino MD, Frank W. Sullivan MD.

Committee Chairmen: Kenneth E. Liffmann MD (Budget), Leonard S. Staudinger MD (Building Trustees), Kenneth E. Liffmann MD (Insurance), Jay M. Orson MD (Library), Guy A. Settupane MD (Publications), Herbert F. Hager MD (Standards and Credentials). Chairmen of Bequests and Membership Committees to be appointed.

AMA'S NEW PATIENT INFORMATION PROGRAM

The American Medical Association has launched a new Patient Medication Instruction (PMI) program to provide physicians with information sheets (termed PMIs) for distribution to patients. The Association has completed PMIs on 20 drugs and classes and hopes to have 100 by the end of 1984. Physicians will purchase PMIs in pads of 100, at \$0.50 per pad. They will provide patients with information on what the drug is for, proper use of the medication, possible drug and food interactions, and other information.

PHYSICIAN OPPORTUNITIES

A second physician is needed for the town of Philip, South Dakota, a community of approximately 1200 people. The town offers a 20-bed acute care facility with a 30-bed nursing facility adjacent to the hospital building. Send inquiries to: Arnold A. Gertonson DVM, Chairman, Philip Health Services, Physician Recruitment Committee, Box 548, 603 West Pine, Philip, South Dakota 57567.

Medical Services

Commissioners: Leonard S. Staudinger MD (Chairman), Lorand Brown MD, Charles E. Millard MD, Douglas Rayner MD, Fred Vohr MD.

Committee Chairmen: John E. Farley Jr. MD (Alcohol and Drug Abuse), Charles E. Millard MD (Delivery of Health Care), A.A. Savastano MD (Medical Aspects of Sports), Hugo Taussig MD (Mental Health), John S. O'Shea MD (Professional Health Care Providers), John C. Baxter MD (Occupational Health).

Medicine and Law

Commissioners: Peter D.T. Clarisse MD (Chairman), Richard G. Bertini MD, Joseph E. Caruolo MD, Thomas M. Drew MD, Herbert Rakatansky MD.

Committee Chairmen: Herbert Rakatansky MD (Impaired Physicians), Peter D.T. Clarisse MD (Public Laws), J. Douglas Nisbet MD (Maternal Health and Mortality), Melvin D. Hoffman MD (Mediation).

Public Affairs

Commissioners: Richard D. Frary MD (Chairman), Robert W. Drew MD, Henry B. Freye MD, Richard B. Turner MD.

Committee Chairmen: Herbert Constantine MD (Communications and Media), Milton W. Hamolsky MD (Nursing), Melvin D. Hoffman MD (Public Policy), John Lathrop MD (Science Fair), Leonard S. Staudinger MD (Dr. Charles L. Hill Award). Chairmen of Liaisons and Third Parties Committees to be appointed.

WHAT TO WRITE FOR:

The 1982 Directory of Human Services in Rhode Island, recently published by the Council of Community Services in Rhode Island, offers a comprehensive 307 page listing of human services in the state. Individual copies of the Directory are \$10, which includes postage and handling. Discounts are available for larger quantities. Order from Council for Community Services, 229 Waterman Street, Providence, Rhode Island 02906, (401) 861-5550.

A 56-page booklet titled "Living with Cancer" published by the Rhode Island Cancer Control Program and the Rhode Island Department of Health is available to physicians who would like to offer them to patients. Address requests to Rhode Island Cancer Society, 345 Blackstone Boulevard, Providence, Rhode Island 02906, 1-800-662-5000 or (401) 831-6970.

RIMS LIBRARY NOTE

The following titles, weeded from the RIMS library collection, are offered on a first come first served basis to Society members. Members should contact Larry Chionchio, Librarian, to place their request (401) 331-3208.

Maximow AA, Bloom W: Textbook of Physiology, ed 3, 1938; ed 7, 1957; ed 8, 1962.

Ganong WF: Review of Medical Physiology 1963, ed 5, 1971; ed 6, 1973; ed 7, 1975; ed 9, 1979.

Harrison's Principles of Internal Medicine 1950; ed 2, 1954; ed 3, 1958; ed 4, 1962; ed 5, 1966; ed 6, 1970; ed 7, 1974; ed 8, 1977.

Todd JC: Clinical Diagnosis by Laboratory Methods, ed 5, 1924; ed 10, 1943; ed 12, 1953; ed 13, 1962; ed 14, 1969; ed 15, 1974.

Fudenberg HH et al: Basic and Clinical Immunology 1976; ed 2, 1978; ed 3, 1980.

Jawetz E: Review of Medical Microbiology 1954; ed 4, 1960; ed 10, 1972; ed 11, 1974; ed 12, 1976; ed 13, 1978; ed 14, 1980.

French H: An Index of Differential Diagnosis, ed 2, 1917; ed 6, 1945; ed 7, 1954; ed 9, 1967.

Current Medical Diagnosis and Treatment 1962-1964; 1970-1980.

Robbins SL: Textbook of Pathology 1957; ed 2, 1962; ed 3, 1967.

AMA Current Medical Terminology 1962, 1963, 1966.

Joslin EP: Treatment of Diabetes Mellitus, ed 3, 1923; ed 6, 1937; ed 8, 1946; ed 9, 1952; ed 10, 1959.

Sokolow M et al: Clinical Cardiology 1977; ed 2, 1979.

Merritt HH: Textbook of Neurology, ed 4, 1967.

Conn HF: Current Therapy 1949-1955; 1957-1959; 1960-1966; 1968-1969; 1971-1975; 1977.

...TO RECEIVE TEL-MED BROCHURES...CALL 371-5225

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients

Upjohn



In the treatment of insomnia

Good mornings start with restful nights.

Dalmane (*flurazepam HCl/Roche*)
patients fall asleep faster,
sleep longer and seldom awaken
with morning hangover.

Feeling well rested in the morning usually means having slept well the night before. And for insomniac patients receiving hypnotic therapy, a good morning also means awakening with few side effects from their medication. Many physicians choose Dalmane for their patients who suffer from insomnia for this very reason.

Aside from enabling patients to fall asleep more quickly and sleep longer, Dalmane seldom causes morning hangover. Most Dalmane patients feel alert and refreshed when they awaken. In 53 paired-night clinical studies comparing Dalmane and placebo in 2010 insomniac patients with a variety of secondary diagnoses, most Dalmane patients awakened more alert and refreshed, and less groggy and drowsy, than on nights when they had taken only placebo.¹ In a double-blind crossover study of

42 patients in private practice, approximately three times as many patients reported feeling refreshed and alert upon awakening after a night on Dalmane (flurazepam/Roche) compared to placebo nights.² This difference was highly significant ($p < 0.001$). And a retrospective study of 25 hospitalized patients who received Dalmane revealed only a 3.1% incidence of side effects.³

While residual effects from Dalmane therapy are infrequent, patients should be cautioned about drinking alcohol, driving or operating hazardous machinery after ingesting the drug.

Efficacy and safety in a broad range of patient types.

Over 2000 clinical trials involving more than 10,000 patients have shown that Dalmane patients fall asleep sooner, sleep longer and experience fewer nocturnal awakenings.⁴ The safety and efficacy of Dalmane have been demonstrated in medical and surgical hospitalized patients, in patients seen in office practice and in elderly patients.⁵⁻⁸ Since the risk of oversedation, dizziness, confu-

sion and/or ataxia increases with larger doses in the elderly, it is recommended that the dosage be limited to 15 mg.

Moreover, the efficacy and safety of Dalmane for the treatment of insomnia have been demonstrated in thousands of patients with a variety of primary medical conditions, including cardiovascular, neuropsychiatric, endocrine-metabolic, gastrointestinal, genitourinary, respiratory and musculoskeletal disorders.¹ Dalmane (flurazepam HCl/Roche) is contraindicated in pregnancy and in patients hypersensitive to the drug.

Avoids rebound insomnia upon discontinuation.

Rebound insomnia—a worsening of sleep beyond pretherapy levels after drug discontinuation—has been reported as a potential clinical problem with some hypnotics.^{9,10} However, this problem has not been reported with Dalmane. In eight out of eight sleep laboratory studies, there were no reports of rebound insomnia.¹¹ When you prescribe Dalmane, you can be confident of efficacy that enhances therapeutic progress. Your insomniac patients can be assured of a restful night, night after night—a good start for a good morning.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 3. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 4. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Meyer JA, Kurland KZ: *Milit Med* 138:471-474, Aug 1973. 6. Feller HL, Gibbons B: *Med Times* 101(8):130-135, Aug 1973. 7. Jacobson A et al: *Psychophysiology* 7:345, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 1978. 10. Kales A et al: *JAMA* 241:1692-1695, Apr 1979. 11. Monti JM: *Methods Find Exp Clin Pharmacol* 3(5):303-326, 1981.

For efficacy from the beginning to the end of therapy

15-mg/30-mg capsules



Dalmane[®] ^{IV}

flurazepam HCl/Roche

stands apart

Dalmane[®]
flurazepam HCl/Roche
15-mg/30-mg capsules

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701



This ad is for all those who ever wonder where the money goes.

Her name is Dana. And, she was born with impaired hearing. But this year, thanks to the therapy she will receive at her local hearing and speech center, she'll be able to clearly hear the world around her for the first time.

If you're from her hometown, your gift to your local United Way went to help make this possible. And, it was also used to help thousands of others in your community who need help.

That's the way the United Way works. One gift, one time each year, helps millions of people all year round. Tens of thousands of different, good causes in communities all across the country. Including yours.



United Way

Thanks to you, it works. for ALL OF US.



A Public Service of This Magazine & The Advertising Council

Continuing Advancement of Public Health Practice

This issue of the *Rhode Island Medical Journal* contains three papers contributed by the Rhode Island Department of Health. Doctors Burgess and Meroney provide us with their perspective on the "curve of final acceptance development," especially as it relates to health promotion. Doctors Faich and Mullan provide us with an update on hospitalization for tuberculosis in Rhode Island. Finally, Doctor Mitchell provides us with a review of an approved curriculum for emergency medical technician-paramedics (EMT-P). This is probably the first time that three authors from the Rhode Island Department of Health have been included in the same issue of the *Journal*, reflecting two beneficial trends.

First, these contributions from the Rhode Island Department of Health demonstrate a continuing emphasis on professional public health practice in the State of Rhode Island. Over the past two decades, the Rhode Island Department of Health has been quite successful in attracting talented health professionals into public health service. These professionals have contributed to larger professional and community enterprises, as well as to the advancement of public health practice in Rhode Island. We are committed to

the continuation of this excellence in public health personnel.

Second, we see a growing convergence of public health and curative medicine. Historically, public health and curative medicine have been too separated.¹ The natural history of disease does not support separation; it requires close collaboration between primary (health promotion), secondary (early detection and treatment) and tertiary (rehabilitation) prevention.² Our collective challenge for the future is the development of a balanced health policy for the State of Rhode Island which incorporates appropriate weight for prevention, cure and rehabilitation.

In conclusion, we sincerely hope that the staff of the Rhode Island Department of Health will continue to contribute to the professional betterment of the Rhode Island Medical Society and vice versa.

Joseph E. Cannon, MD, MPH
Director

Rhode Island Department of Health

¹ Freymann JG: Medicine's great schism: prevention vs cure: an historical interpretation. *Medical Care* 13(7):525-536, Jul 75.

² Leavell HR, Gunsey E: Levels of application of preventive medicine, in *Preventive Medicine for the Doctor in His Community*. New York, McGraw-Hill, 1965, pp 14-38.

Improvement of EMS in Rhode Island

The past two years have brought significant advances in prehospital care to Rhode Island. The decision to have an identified physician Medical Director for the statewide emergency medical services (EMS) system helped provide the necessary push to establish this forward momentum. As in many other states, physicians here did not have the preeminent role in EMS planning and supervision which should have been theirs. Several physicians around the state have played

pivotal roles in EMS regionally and statewide on a voluntary basis, but the medical community as a whole has been relatively uninformed of the issues concerning EMS. Recent publications in the *Journal* have been aimed at increasing that general level of awareness of physicians and at increasing the general level of input into the continued development of the EMS system.

Legislation passed last session in the General Assembly has increased the number of physicians

on the Ambulance Service Coordinating Board (which has general responsibility for the EMS system's minimum standards for licensure and operations) from one to four. The Rhode Island Medical Society and several specialty societies were instrumental in their support for the needed legislative change. Currently, Dr. Richard Brown (Rhode Island Chapter, American College of Emergency Physicians), Dr. Charles Ashworth, Jr. (Trauma Committee, Rhode Island Chapter, American College of Surgeons), Dr. Timothy Lepore (Rhode Island Medical Society) and I (as designated Chairman for the Director of Health) are serving terms on that Board.

The bills provide for standardization of the approach by all Emergency Medical Technicians of all training levels to presenting symptom complexes in the prehospital environment. Included in these will be standing orders which authorize medications and treatment to be given by advanced EMTs for specific emergencies such as cardiac arrest when there is a radio telemetry communications breakdown. This measure alone should boost the state's prehospital resuscitation rate by several fold.

The bills passed provide for the stricter medical control necessary to consider the training and

implementation of paramedics in this state. A paper in this month's *Journal* addresses the general training program for such EMS personnel. Physicians around the state must become involved with the planning and implementation of such a program in order to have the maximum positive impact on health care through a cooperative effort of all those involved in emergency care.

The bills also provide for strong statutory immunity from liability for all those involved in the teaching and supervision of prehospital personnel. For those with liability concerns as a final hurdle to active involvement with EMS, I hope this can convince them to become active now.

The primary need of prehospital care in this state is strong local medical control and physician involvement. Only the practicing physicians can make the difference. We urge all readers to make comments, suggestions, and interest known to the various specialty representatives, to the Society, or to the Ambulance Service Coordinating Board.

Glenn W. Mitchell, MD
Medical Director, EMS
Chairman, Ambulance Service Coordinating
Board

Proposed Changes at Rhode Island Hospital

To the Editor:

In the President's Page in the September 1982 issue of the *Rhode Island Medical Journal*, "A Hospital Corporation Challenges Medical Practice: The Dilemma of Change," Dr. Hoffman requests comments which are proposed in the new missions and goals for the Rhode Island Hospital. It would be simpler, I think, to comment on the contra arguments, since they are more specific than the general presentation of direction and interest which are a good brief condensation of many complex issues and problems.

Why would the building of a national reputation (or rather enhancing it) probably *decrease* the quality of local services? Rhode Island Hospital has changed very significantly in the past 15 years. We have developed a national reputation in some areas in clinical research and its application to patient care, and are strengthening other areas that will add to a growing national stature. Brown and its medical school have provided the attraction for faculty of national reputation, and we are growing on our own now. The quality and number of resident applicants has steadily increased in Surgery I know, in Medicine I am quite sure, and in Pediatrics dramatically. Good residents are essential to good patient care, and to the quality of future practitioners in the state. Is this not in the public interest? Even though residents *are* paid a lot more than you or I were, they are paid the same everywhere today.

Why would the proposed changes cost many staff *close* ties with Rhode Island Hospital? Those with close ties focus their hospital activities at Rhode Island Hospital, and contribute to its patient care and teaching missions. I cannot see their being displaced. I am more concerned about the fact that our medical staff has grown so large in the past 10 years that there is not room for all of their patients, particularly in adult medicine, and that many by necessity as well as some by choice concentrate their efforts elsewhere. For some of these the attitude is "I use X, Y and Z hospitals for my patients and am too busy to

teach, attend clinics and take ER call at all or even any of them (unless my privileges depend on it!)."

Yet the idea of choosing to concentrate in one hospital, and accepting the hospital and departmental responsibilities that have to be met, as they were years ago by all of us, is opposed by many. I think that a re-definition of "close ties"— now being called "commitment"— is a very essential and necessary move if the hospital is to be the referral and trauma center for Southeastern New England, as well as the largest teaching hospital in the Brown Program in Medicine.

Should all hospitals be equal? Certainly the establishment of new services by all the hospitals will seriously decrease their advantage of being able to care for *most* patients at a considerably lower cost than Rhode Island Hospital. Placing patients in echelons according to severity and complexity is the only answer to maintaining some degree of cost control— witness the expense of an open heart program, and the substantial savings per patient of ambulatory surgery. Most hospitals can and should provide ambulatory surgery, and diagnostic screening pre-admission. Certainly not all should have an open heart surgical program, or a burn center, or neonatal intensive care, and so forth.

"Research requires money," I agree. But in my opinion far more research dollars come into the state as grants and contracts than are "paid by the consumers" in the state as a part of health care delivery costs. Look at current federal research grants for cancer and for neonatology, for diabetes and now for trauma. The American Cancer Society grants in Rhode Island for cancer research consistently exceed the total dollars sent to the national office from the local division. I personally have brought in about a million dollars to Rhode Island Hospital for research and \$400,000 to Brown for the medical school teaching program. All these monies came from out of state and help support our economy.

I do not agree that research costs are "most

likely to come from the consumer," implying local health care costs. I challenge you to prove that allegation!

I agree that the proposed definitions by Rhode Island Hospital of its directions and goals represent a change. But this change has been going on for at least the past 15 years that I have been here. The Trustees and a wide representation of the staff tried to tackle the problem in 1977 when most of the issues were outlined. They failed because at the time it seemed possible still to try to be all things to all persons. Now, obviously, this cannot be the case any longer, and changes have to be made in a formal sense to recognize the responsibilities that are placed on Rhode Island Hospital by the public and the profession. The hospital must adjust to meet them.

Some hospitals are the clinical arm of universities and their medical schools. They accept far greater obligations in teaching, and in clinically related research than non-affiliated community hospitals. They attract academically oriented staff and faculty who like to teach, want to do clinical investigation, and some who are willing to accept the onerous and poorly rewarded burdens of professional administration of departments and of postgraduate training programs. The academic world is an hierarchical world, with rank and discipline, and responsibility and authority. It cannot function without these qualities, even in medicine.

Starting with Lester Vargas in 1961 and Milton Hamolsky in 1963, Rhode Island Hospital has chosen the academic path. Now 20 years later it is re-affirming its commitment, and strengthening its structure to meet today's challenges. The changes are both the responsibility and the right of the trustees, who are non-medical representatives of the people of the State of Rhode Island.

Certainly the professional staff, who are appointed by the Trustees, should have, and do have on all committees, a voice in policy and plan-

ning — but the staff does not vote and thereby determine policy except in professional matters where the authority is delegated to them by the Trustees.

The medical society does not represent the staff of Rhode Island Hospital, and it must exercise great care that it not attempt to interfere or direct policy by assuming that it does. If this happens, then we will see history repeating itself, I am afraid, with polarization within the profession, and further weakening of our ability to deliver patient care effectively through further loss of face and stature with the public as our disagreements become known.

I am deeply concerned that we may be headed down that kind of path, and hope that Dr. Hoffman, as a leader in the profession, will work, as I shall, to prevent it.

Henry T. Randall, MD
Professor Emeritus of Medical Science
Consulting Surgeon and Former Chairman
Department of Surgery, Rhode Island Hospital

The above letter was referred to the author of the article in question, who offers the following reply:

To the Editor:

I am in full agreement with Dr. Randall's statement that "The medical society does not represent the staff of Rhode Island Hospital," and I concur that the Rhode Island Medical Society should not and cannot interfere or direct policy at the Rhode Island Hospital. However, because the actions at Rhode Island Hospital will affect all physicians and patients in the state, I believe that the Society has a responsibility to make known some of the long-range implications of the hospital's proposed goals.

Melvin D. Hoffman, MD
President
Rhode Island Medical Society

To the Editor:

I read with interest Doctor Melvin Hoffman's commentary titled, "A Hospital Corporation Challenges Medical Practice: The Dilemma of Change," which appeared in the September 1982 issue of the *Rhode Island Medical Journal*.

I believe that his detailed evaluation and early comment concerning this problem was very premature. The process that resulted in the draft

presentation had included the deliberations of a number of practicing physicians and was presented to the staff for further discussion and deliberation. As a result of the staff physicians' concerns, no decisions were made by the Board of Trustees. Subsequently there were two more staff meetings for the very purpose of discussing the proposals further reflecting the concern of both

management and trustees. They were willing to have as many discussions as necessary for the staff to be heard before the process was allowed to continue.

It is distressing that, even though we are in the most embryonic phase of this proposal, it has already been concluded that the plan is likely to have an adverse effect on the community and the private practice of medicine. These conclusions then feed upon themselves, and it is once again concluded that the Board of Trustees of a private institution is trying negatively to affect the private practitioner. It is my opinion that the Medical Society as well as others interested in health care delivery in Rhode Island, should accept the view that improved quality would not only be desirable, but also attainable. In fact, upgrading medical care will require some increased costs and probably result in changes for everybody. To

assume that changes suggested by Rhode Island Hospital or Brown University are a threat to the private practitioner may be valid, but are not necessarily so.

We should all be better served if we insisted on participating in all proposals and agreed that we are committed to high quality medical care at acceptable costs. Both practicing and institutionally supported physicians have mutual interests. We shall not be able to function in an unchanging manner, since the pressures from many sources preclude "business as usual." Therefore, it is necessary that all members of the medical community become partners rather than adversaries in the changes of delivery of medical services which are occurring around us.

Joseph A. Chazan, MD

If you're disabled, what happens to your earning power?

Think how an unexpected accident or sickness could halt your income at any moment and you'll realize how important Disability Income Insurance can be. Now by applying for this policy, you can assure yourself of steady, continuing income benefits that go to work for you when you're disabled.

This policy is
Endorsed
by:
RHODE ISLAND
MEDICAL SOCIETY

As a member of the Rhode Island Medical Society, you'll get this coverage at a cost less than an individual policy.

For specific information on costs and coverage, write or phone the administrators.

Administered by
 **LESTER L. BURDICK, INC.**
Loyalty Group Insurance
10 POST OFFICE SQUARE, BOSTON, MA 02109
(617) 426-0020

Local Representative **JAMES M. FIGARA** (401) 434-7091

Underwritten by: **COMMERCIAL INSURANCE COMPANY**, 100 Wood Avenue South, Iselin, New Jersey 08830 • (201) 321-3800

Rhode Island Medical Society Necrology 1980-1981

John Amoruso, MD

Doctor John Amoruso of Newport died on March 8, 1980, at 74 years of age. He was a graduate of Rogers High School and New York University. Doctor Amoruso served his internship at the Harlem Hospital from 1930-1932, and he also served his residency there. He was a member of the Newport County Medical Society and the Rhode Island Medical Society.

Angelo Archetto, MD

Doctor Angelo Archetto died on July 27, 1981, at 84 years of age. Doctor Archetto was a graduate of the University of Vermont and its College of Medicine. He did an internship at St. Joseph Hospital. Among his professional affiliations, Doctor Archetto was a member of the Providence Medical Association, the International Anesthesia Research Society, and the Eastern Society of Anesthetists. He was the husband of Elvi Archetto.

Dumitru Caramiciu, MD

Doctor Dumitru Caramiciu died on July 21, 1981, at 61 years of age. Doctor Caramiciu graduated from the Frederick Alexander University, West Germany. He served his internship at the Jewish Memorial Hospital, New York from 1951 to 1952. He did his residency at the Morrisania City Hospital, New York from 1952 to 1953, and at the St. Elizabeth's Hospital, New York from 1953 to 1954. Doctor Caramiciu was a member of the American Medical Association, the Kent County Medical Society, the Providence Medical Association, the Rhode Island Chapter of the American College of Family Physicians, and the American Psychosomatic Society. Doctor Caramiciu was the husband of Anna K. Caramiciu.

Charles W. Cashman, MD

Doctor Charles W. Cashman of Rumford died on February 8, 1981, at 65 years of age. Doctor Cashman was a graduate of Brown University, Class of

1937, the Yale Medical School, Class of 1941, and he was a World War II Army veteran. He also was a member of the New England Surgical Society, the Providence Surgical Society, and the Art Club of Rhode Island. Doctor Cashman was the husband of Katharine Cashman.

Mihran Chapian, MD

Doctor Mihran Chapian died on March 5, 1981, at 89 years of age. Doctor Chapian graduated from Tufts University School of Medicine in 1920. He received his training in urology at the graduate school of medicine at the University of Pennsylvania, and he served in the student Army Training Corps in World War I. Doctor Chapian was past president and chairman of the executive committee of the medical staff of The Memorial Hospital, and former chief of urology there. He was a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association and the New England and American Urological Associations.

G. Edward Crane, MD

Doctor G. Edward Crane died July 12, 1981, at 71 years of age. Doctor Crane graduated from Tufts Medical School in 1935, served his internship at The Memorial Hospital from 1935 to 1936, and his residency at the Rhode Island Hospital from 1936 to 1938. Doctor Crane was a member of the Providence Medical Association and the Rhode Island Medical Society. He was the husband of Lillian Crane.

Charles C. Dotterer, MD

Doctor Charles Dotterer died on July 22, 1980, at 70 years of age. Doctor Dotterer graduated from Ursinus College in Pennsylvania and received his doctorate at Hahnemann Medical School in Philadelphia. He served his residency at the New York Eye and Ear Infirmary. Doctor Dotterer was a lieutenant commander in the Navy Medical

Corps, stationed in Newport and in Panama during World War II. He was a member of the Newport County Medical Society and the Rhode Island Medical Society. Doctor Dotterer was the husband of Evelyn Dotterer.

Walter J. Dufresne, MD

Doctor Walter J. Dufresne died on August 29, 1981, at 81 years of age. Doctor Dufresne was a graduate of LaSalle Academy, Tufts University and Medical School, and interned at The Memorial Hospital where he was former chief of obstetrics. He was also former chief of obstetrics at Notre Dame Hospital in Central Falls. He was past president of the Pawtucket Medical Association, past vice president of the Rhode Island Medical Society, a member of the New England Society of Clinical Hypnosis, the American Society of Psychosomatic Medicine and Dentistry, the New England Society of Obstetrics and Gynecology, and a Fellow of the American College of Obstetrics and Gynecology. Doctor Dufresne received a citation from President Harry S. Truman during World War II for civilian service in medicine. He was the husband of Doris Dufresne.

William P. D'Ugo, MD

Doctor William P. D'Ugo died on September 13, 1980, at 74 years of age. Doctor D'Ugo graduated from Brown University in 1928 and in 1932 graduated from Boston University Medical School. He then served internships at Carney Hospital in Boston and Charles V. Chapin Hospital in Providence. Doctor D'Ugo was a member of the American Medical Association, the Rhode Island Medical Society, the Providence Medical Association, and a fellow of the American College of Internists. He was the husband of the late Camille D'Ugo.

LeRoy W. Falkinburg

Doctor LeRoy W. Falkinburg died on April 14, 1980, at 72 years of age. Doctor Falkinburg graduated from Hahnemann Medical College in 1935 and was an instructor in pathology at that college after his graduation. From 1942 to 1946 he was a laboratory officer for the 15th Field Hospital, Army Medical Corps, in Cairo, Egypt. He was a retired Army major. Doctor Falkinburg was a member of the American Medical Association, the Rhode Island Medical Society, the Providence Medical Association, the Rhode Island Society of Pathologists, the New England Society

of Pathologists, and was a fellow of the College of American Pathologists. Doctor Falkinburg was the husband of Ruth Falkinburg.

Ferdinand Forgiel, MD

Doctor Ferdinand Forgiel died on October 17, 1980, at 64 years of age. Doctor Forgiel was a 1937 graduate of Providence College, a 1941 graduate of Jefferson Medical School, Philadelphia, and he served his residency at Boston's Lahey Clinic. He was a member of the Pawtucket Medical Association and the Rhode Island Medical Society. Doctor Forgiel was the husband of Jane Forgiel.

Albert J. Gaudet, MD

Doctor Albert J. Gaudet of Lincoln died on July 31, 1981, at 71 years of age. Doctor Gaudet was a graduate of Providence College and earned his medical degree at the Royal University of Rome in Bologna, Italy. An army captain in World War II, who served as a battalion surgeon and medical officer, he received the Bronze Star and two letters of commendation. Doctor Gaudet was a past president of the medical staffs at Roger Williams General Hospital and Notre Dame Hospital, and of the Pawtucket Medical Association. His memberships included the American Medical Association, the Rhode Island Medical Society, and the Pawtucket Medical Association. He was a Fellow of the International College of Surgeons, and a member of the American Board of Abdominal Surgery. Doctor Gaudet was the husband of Agnes Gaudet.

Charles Goodman, MD

Doctor Charles Goodman of East Greenwich died on February 27, 1981, at 57 years of age. A 1943 graduate of Providence College, he earned his medical degree at Jefferson Medical College in 1948. He interned at The Memorial Hospital, Pawtucket and was on the staff of the Institute of Mental Health from 1949 to 1952. He was senior resident at Butler Hospital from 1952 to 1953. His affiliations include the Rhode Island Medical Society, the Kent County Medical Society, the American Medical Association, and the American Association of General Hospital Psychiatrists. He was a past president and councilor of the Rhode Island district branch of the American Psychiatric Association. Doctor Goodman was the husband of Joan Goodman.

Thomas A. Grossi, MD

Doctor Thomas A. Grossi died on February 8, 1981, at 46 years of age. Doctor Grossi was a graduate of Boston University in 1956 and Tufts University Medical School in 1960. He served his internship and residency at the Naval Hospital, Chelsea, Massachusetts from 1960 to 1961 and from 1963 to 1966. He served in the Navy for 23 years, retiring in 1979. He also was a member of the American Medical Association, the American College of Physicians, the Massachusetts Medical Society, the Rhode Island Medical Society, and the Newport County Medical Society. Doctor Grossi was the husband of Lois Grossi.

Charles L. Hill, MD

Doctor Charles L. Hill died on November 9, 1980, at 49 years of age. Doctor Hill graduated from Harvard University in 1952. After receiving his medical degree from Boston University School of Medicine in 1956, he served as an intern at Rhode Island Hospital and as a resident physician there from 1957 to 1961. Dr. Hill received postgraduate training in his specialty, otolaryngology, at the University of Pennsylvania, and served in the Marine Corps and the Air Force. He was immediate past president of the Rhode Island Medical Society, and a member of the American Medical Association, the American College of Surgeons, and the New England Otolaryngological Society. He was a diplomate of the American Academy of Otolaryngology. Dr. Hill was the husband of Janice Hill.

William N. Hughes, MD

Doctor William N. Hughes died on March 14, 1981, at 85 years of age. Doctor Hughes graduated in 1916 from Brown University and received a medical degree from Harvard University in 1921. He was a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association, the Association for Research and Nervous and Mental Disease, the American Academy of Neurology, the American Psychiatric Association, the Boston Society of Psychiatry and Neurology, the American Epileptic Society and the Aero-Medical Association. He was also past president of the Rhode Island Society for Neurology and Psychiatry. Doctor Hughes was the husband of Pauline Hughes.

Albert Jackvony, MD

Doctor Albert H. Jackvony died on November 18, 1981, at 91 years of age. Doctor Jackvony was graduated from the former Rhode Island College of Pharmacy, now part of the University of Rhode Island, in 1912, the Mount Vernon Institute, Baltimore, in 1915, and the University of Maryland Medical School in 1920. He served his surgical internship at Franklin Square Hospital, Baltimore, in 1921 and 1922. Doctor Jackvony was a past president of the Providence Medical Association and the Rhode Island Medical Society. He was a fellow of the American College of Surgeons and the International College of Surgeons, and a member of the American Medical Association and the Providence Surgical Society. Doctor Jackvony was the husband of the late Anna Jackvony.

John P. Jones, MD

Doctor John P. Jones died on February 6, 1980 in Sarasota, Florida at 92 years of age. Doctor Jones graduated from the Jefferson Medical College in Philadelphia. He served in France with the Army Medical Corps during World War I, and in 1954 traveled to England, where members of the royal family made him a member of the International College of Surgeons. Doctor Jones was a member of the Washington County and Rhode Island Medical Societies and the American Medical Association, and he was a fellow of the American College of Surgeons. Doctor Jones was the husband of Maude Jones.

Walter S. Jones, MD

Doctor Walter S. Jones died on December 16, 1981, at 77 years of age. Doctor Jones graduated from Brown University in 1926 and from Harvard Medical School in 1932. He completed an internship at Butler Hospital and a residency at Margaret Pillsbury Hospital in Concord, New Hampshire. For "superlative service" in the military in 1943, he was awarded the Bronze Star. Among his professional affiliations, Doctor Jones was a member of the Providence Medical Association, the Rhode Island Medical Society, and the New England Obstetrical and Gynecological Society.

George E. Kirk, MD

Doctor George E. Kirk died on December 27, 1980, at 71 years of age. Doctor Kirk was a graduate of Brown University in 1932 and McGill Uni-

versity Faculty of Medicine in 1938. He completed internships at the Charles V. Chapin Hospital and the Rhode Island Hospital and a residency at the Providence Lying-In (Women & Infants) Hospital. Among his professional affiliations, Doctor Kirk was a member of the Providence Medical Association and the Rhode Island Medical Society.

Richard J. Kraemer, MD

Doctor Richard J. Kraemer died on December 3, 1981, at 72 years of age. Doctor Kraemer graduated from Providence College and Jefferson Medical College in Philadelphia. He served an internship and residency at Stamford Hospital in Connecticut from 1935 to 1937. He was a former vice president of the Rhode Island Medical Society, a member of the American Medical Association, former secretary/treasurer of the Rhode Island Chapter of the American Academy of General Practitioners and a former president of the American Geriatric Society. Doctor Kraemer was the husband of Lori Kraemer.

Fedele U. Luongo, MD

Doctor Fedele U. Luongo of Smithfield died on February 27, 1980, at 93 years of age. Doctor Luongo was a 1912 graduate of the University of Naples, and served his internship and residencies in Italy. He was a member of the Providence Medical Association, the Rhode Island Medical Society and the American Medical Society. Doctor Luongo had been on the staffs of Miriam Hospital and St. Joseph Hospital. He was the husband of Esther Luongo.

Joseph H. Marks, MD

Doctor Joseph H. Marks of Lincoln died on August 18, 1981, at 85 years of age. Doctor Marks was a 1919 graduate of the New York University School of Medicine. He served his internship at the Harlem Hospital in New York City from 1919-1920 and his residency at the St. Joseph Hospital in Providence. Dr. Marks was a member of the American Medical Association, the Rhode Island Medical Society, and the Pawtucket Medical Association. He was the husband of the late Caroline Marks.

Lawrence A. Martineau, MD

Doctor Lawrence A. Martineau died on November 30, 1980, at 77 years of age. Doctor Martineau graduated from Tufts Medical School in 1928,

and interned at Boston City Hospital from 1928 to 1929. He was past president of the Rhode Island Hospital Staff Association and a member of the American Medical Association, the Rhode Island Medical Society, the Providence Medical Association, the Rhode Island Radiology Society, the New England Radiology Society, and the Radiology Society of North America. He was a fellow of the American College of Radiology, a former vice president of the American College of Radiology, and senior counselor for the Radiology Society of North America. Doctor Martineau was the husband of Renier Martineau.

Harold C. Miner, MD

Doctor Harold C. Miner died on March 7, 1980, at 86 years of age. He graduated from Brown University in 1915 and from Tufts Medical School in 1919. He interned at both Providence Lying-In (Women & Infants) Hospital and Rhode Island Hospital. Doctor Miner was a veteran of World War I. Doctor Miner was a member of the Providence Medical Association, the Rhode Island Medical Society, the American Medical Association, New England Gynecological and Obstetrical Society, and the Corporation of Rhode Island Hospital. He was the husband of Edith D. Miner.

Barry Mongillo, MD

Doctor Barry Mongillo of North Kingstown died on May 31, 1980, at 68 years of age. Doctor Mongillo was a 1936 graduate of Brown University and of the Boston University Medical School, Class of 1940. He was elected a fellow by the American Psychiatric Association in 1962. He was certified in psychiatry as a member of the American Board of Neurology and Psychiatry in 1953 and, at the time of his death, was a neurologist for the Zambarano Memorial Hospital. Doctor Mongillo was the husband of Alice Mongillo.

Samuel J. Morein, MD

Doctor Samuel J. Morein died on November 2, 1981, at 89 years of age. Doctor Morein graduated from Brown University in 1917 and from Tufts Medical School in 1919. He did a residency at the Union Hospital in Fall River from 1919 to 1920. He also did postgraduate work at the Columbia University and Mount Sinai Hospital, New York from 1924 to 1925. He was a World War I Army Medical Corps veteran. Doctor Morein was a member of the Providence Medical Association, the Rhode Island Medical Society,

and the Massachusetts Medical Society. He was the husband of Sona Morein.

Herbert H. Myers, MD

Doctor Herbert H. Myers died on March 12, 1980, at 65 years of age. Doctor Myers received his medical degree at the University of Bern, Switzerland. He practiced obstetrics for eight years in China. He was a member of the Rhode Island Medical Society, the American Medical Association, the Providence Medical Association, and the American Psychiatric Association. Doctor Myers was the husband of Hannah Myers.

Ernest J. Quesnel, MD

Doctor Ernest J. Quesnel died on July 21, 1980, at 80 years of age. Doctor Quesnel was a graduate of the University of Montreal Medical School. He served his internship at the Hotel-Dien Hospital in Montreal from 1927 to 1928. He was a member of the American Medical Association, the Rhode Island Medical Society, the Providence Medical Association and a life fellow of the American Psychiatric Association. Doctor Quesnel was the husband of Margaret J. Quesnel.

Louis A. Sage, MD

Doctor Louis A. Sage died on December 16, 1981, at 87 years of age. Doctor Sage was a graduate of Brown University in 1926 and the College of Physicians and Surgeons of Columbia University in 1930. He completed internships at Grasslands Hospital in Valhalla, New York and at Rhode Island Hospital, and a residency at Rhode Island Hospital. Among his professional affiliations, Doctor Sage was a member of the Providence Medical Association, the Rhode Island Medical Society, and the Boston Orthopedic Society. He was the husband of Olga J. Sage.

Oscar E. Stapans, MD

Doctor Oscar E. Stapans died on August 28, 1981, at 63 years of age. Doctor Stapans served an internship at the Fitkin Memorial Hospital, New Jersey. He served residencies at the St. Francis Hospital, New York, and the Metropolitan State Hospital, Massachusetts. He was a neuropsychiatrist at Woonsocket Hospital for the past 25 years and founded the hospital's psychiatric unit 25 years ago. He was a member of the Woonsocket Medical Association, the Pawtucket Medical Association, the Rhode Island Medical Society, and the Rhode Island District Branch of the

American Psychiatric Association. He was the husband of Joyce E. Stapans.

John F. Streker, MD

Doctor John F. Streker died on November 6, 1981, at 78 years of age. Doctor Streker graduated from the former University of Rhode Island Pharmacy School in 1924, from Providence College in 1926, and received his medical degree from Jefferson College of Medicine in 1930. He interned in St. Joseph Hospital, Providence, and served his residency in urology at the Metropolitan Hospital, New York City. Doctor Streker was a member of the Rhode Island Medical Society, the Providence Medical Association, the American Medical Association, the American Urological Association, and he was a fellow in the American College of Surgeons. Doctor Streker was the husband of Winifred Streker.

John M. Thorp, MD

Doctor John M. Thorp died on October 30, 1981, at 41 years of age. Doctor Thorp earned a bachelor of science degree at the University of Rhode Island in 1962 and graduated from Cornell Medical College, New York City, in 1967. He served an internship at the United States Public Health Service Hospital, New York from 1967 to 1970. He did his residency at Rhode Island Hospital from 1970 to 1973. Doctor Thorp was a member of the Pawtucket Medical Association, the Rhode Island Medical Society, and the American Medical Association. He was the husband of Linda Thorp.

Salvatore J. P. Turco, MD

Doctor Salvatore Turco died on June 28, 1980, at 71 years of age. Doctor Turco was a graduate of Providence College, class of 1930, and graduated from the Georgetown University Medical School in 1934. He did his internship at St. Mary's Hospital, New Jersey. Doctor Turco served as the personal physician on the African safaris of Royal Little in 1963 and 1965. He was a Rhode Island medical examiner from 1938 to 1956 and a medical director for the University of Rhode Island from 1948 to 1969. Doctor Turco was a member of the Washington County Medical Society and the Rhode Island Medical Society. He was the husband of Mary L. Turco.

Uno Uustal, MD

Doctor Uno Uustal died on January 12, 1981, at

64 years of age. Doctor Uustal was a graduate of the University of Tartu in Estonia and the medical school in Göttingen, Germany. He completed an internship at the Norwegian Hospital in Brooklyn, New York and residencies at the Norwegian Hospital and also at Hackensack Hospital in Hackensack, New Jersey. Among his professional affiliations, Doctor Uustal was a member of the Kent County Medical Society and the Rhode Island Medical Society.

Lester L. Vargas, MD

Doctor Lester L. Vargas of Providence died on December 18, 1980, at 59 years of age. Doctor Vargas attended Hope High School and graduated from Brown University in 1943. He received his medical training at the George Washington University School of Medicine and graduated in 1945. He interned at Rhode Island Hospital and did his residency at Columbia-Presbyterian Medical Center, New York City. In 1979 Doctor Vargas was given the Prince Henry Club's "Man of the Year" award for his service in medicine, particularly for his teaching and research in cardiology. He founded the Cardiac Catheterization Laboratory, the Animal Experimental Laboratory and the Cardiovascular Surgical Research Laboratory at the Rhode Island Hospital. He was a member of 35 professional societies and clubs, the author of more than 30 scholarly papers and served as president of the Rhode Island Heart

Association. Doctor Vargas was the husband of Cynthia M. Vargas.

Joseph E. Wittig, MD

Doctor Joseph E. Wittig died on December 20, 1981 at 79 years of age. Doctor Wittig was a graduate of Providence College in 1924 and Boston University Medical School in 1929. He completed internships at the Rhode Island Medical Center General Hospital and the Union Hospital in Fall River, Massachusetts, and a residency at the Foxboro State Hospital in Foxboro, Massachusetts. Among his professional affiliations, Doctor Wittig was a member of Kent County Medical Society, the Rhode Island Neurological Society, and the New England Psychiatry Society.

Catherine Zouraboff, MD

Doctor Catherine Zouraboff died March 18, 1981, at 88 years of age. She received her medical degree from the University of Switzerland in 1920 and practiced medicine and psychiatry in that country until 1929 when she came to the United States. She served as senior psychiatric physician at the Rhode Island Medical Center from 1938 to 1944. Doctor Zouraboff was a diplomate of the American Board of Psychiatry since 1943, a member of the American Medical Association, the Rhode Island Medical Society and the American Psychiatric Association.

Imagine... ...if there weren't an American Medical Association



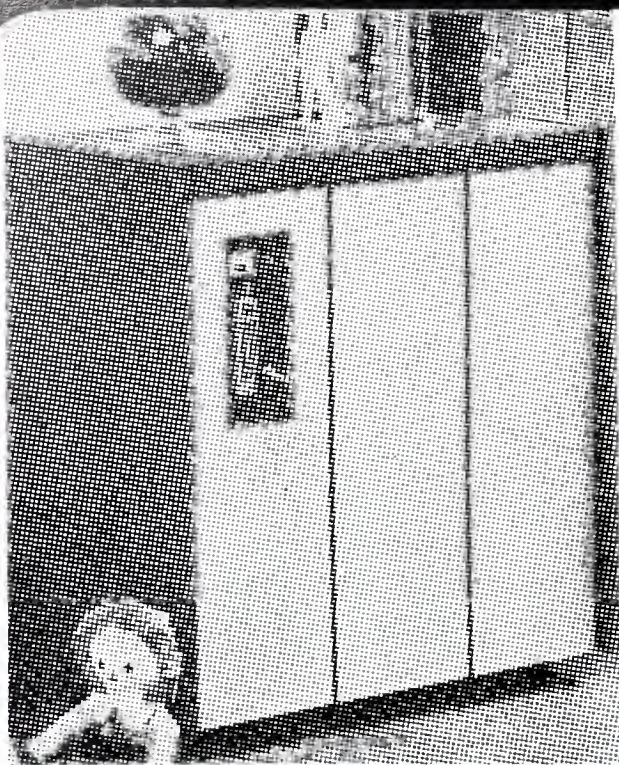
Who Would...

represent your interests and your patients before Congress,
the courts, regulatory agencies, the media and other
important public forums?

NO ONE!

Join the AMA and make sure that there is an organization to
represent all physicians.

For more information or an application, call or write the AMA Office of
Membership Development at 312-751-6410, 535 N. Dearborn St., Chicago, IL 60610.



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted



685 Park Ave.
Cranston
(401) 781-2166

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

Emergency Medical Technicians in Rhode Island: An Overview

Support and Involvement of Physicians Is Necessary for the Design and Implementation of a Paramedic Program

Glenn W. Mitchell, MD

Prehospital emergency medical services (EMS) developed out of the need to establish resuscitative procedures early in the management of accident and acute illness victims in order to increase survival and decrease subsequent morbidity. Although some fire department rescue services were transporting victims (albeit primarily aiding firemen at fires), the majority of victims in the 1950s and early 1960s were carried to local hospitals by hearses from a local mortuary, staffed with well-meaning but untrained attendants and equipped with a first aid kit at best. R. A. Cowley and others (many of them combat-veteran surgeons) recognized the increased morbidity and mortality caused by this primitive pre-hospital transport system, and the white paper from the National Academy of Sciences titled "Accidental Death and Disability" in 1966¹ which resulted from their efforts catalyzed major change. A federal effort began in earnest in 1973 with the passage of the Emergency Medical Services Systems Act² after initial federal demonstration projects were successful. Along with multi-departmental funding by the federal government for systems development, the Department

of Transportation provided guidelines³ for the curriculum of a new kind of ambulance attendant: the Emergency Medical Technician-Ambulance (EMT-A). This person was conceived to have the skills to "prevent further harm" from happening to a victim of an accident or severe illness during transportation to a treatment facility.

The Department of Transportation's standard curriculum (still in effect) includes a minimum of 81 hours of training, starting at the level of Red Cross certification in advanced first aid, which exposes the individual to basic skills in: 1) Control of the scene of illness or injury, 2) assessment of a patient's condition, 3) establishment and maintenance of a patent airway, 4) ventilation of a patient, 5) oxygen administration, 6) cardiopulmonary resuscitation (CPR), 7) control of accessible bleeding, 8) treatment of shock (non-invasive), 9) treatment of poisoning, 10) bandaging and dressing of wounds, 11) splinting of fractures, 12) recognition of medical emergencies, 13) recognition of environmental emergencies, 14) provision of obstetrical assistance, and 15) execution of proper rescue techniques.

These skills are effective for carrying out the basic tenet of "no further harm"; but, aside from basic CPR, there is little further good. The EMT-A provides stabilization in the field on a rudimentary level; there are no fluids or medications to give except oxygen and ipecac.

The classification of Emergency Medical Technician-Intermediate (EMT-I) was established formally in 1981 in Rhode Island to provide an in-

Glenn W. Mitchell, MD, Medical Director, Emergency Medical Services, Rhode Island Department of Health; Clinical Instructor, Brown University, Providence, Rhode Island.

crease in resuscitative skills to the more suburban and rural areas. This classification requires 25 hours of training beyond the EMT-A in the use of pneumatic anti-shock garments (PAGs), the esophageal obturator airway (EOA), and intravenous theory. EMT-I personnel can provide airway control and protection to victims of cardiac arrest, provide counterpressure measures for patients with hypovolemic shock, and assist advanced-EMTs with intravenous maintenance. (They are not trained to start intravenous lines.)

More advanced levels of prehospital emergency medical services have developed around the country to address the needs of individual regions and systems. The most publicized level has been the Emergency Medical Technician-Paramedic (EMT-P). An informal survey shows that approximately thirty different EMT classifications currently exist in this country. Each EMT classification has an associated level of training and experience in the assessment of different organ systems and body areas. Each classification of EMT has various combinations of intravenous skills (peripheral and central), PAGs, defibrillation, endotracheal and EOA intubation, and intravenous medications; the EMT-P has all of them. The National Registry of EMTs recognizes only three levels (EMT-A, EMT-I and EMT-P) and the American College of Emergency Physicians Committee on EMS recently considered advocating only two levels of EMTs (EMT-A and EMT-P). The only overall agreement seems to be that the lowest level is the EMT-A and the highest level is the EMT-P or Paramedic.

Paramedic training and licensure are not currently implemented in Rhode Island. This state opted for the creation of cardiac technicians ("advanced-EMTs") early in its EMS development (1973).⁴ These individuals have 120 hours of training in arrhythmia recognition, defibrillation, peripheral intravenous skills, six cardiac medications (Table 1), pneumatic anti-shock garments and the EOA. This corresponds to the partial contents of Modules 1, 3, 4, 5, and 6 of the Paramedic curriculum below. These advanced EMTs give the metropolitan areas of the state improved on-scene initial treatment for cardiac arrest and ventricular arrhythmia suppression. The areas served by rescue companies with advanced EMTs are Providence, Cranston, Warwick, East Providence, Barrington, West Warwick, North Kingstown, Woonsocket, and parts of South County. It should be noted that not all ambulances are equipped for advanced life support in all of these communities and that staffing

patterns do not result in constant availability of advanced EMTs for those vehicles that are so equipped.

The Department of Transportation-approved Paramedic curriculum⁵ is 480 hours of training and experience beyond the EMT-A level. Each section of the curriculum is tailored, of course, to the prehospital needs of the Paramedic. The standard course is divided into 15 modules and can be summarized as follows:

Module 1. The Emergency Medical Technician
The role of the EMT-Paramedic in the health care delivery system, his/her duties and responsibilities, and legislation affecting his/her job are covered. In addition, issues in medical ethics and reactions to death and dying are discussed.

Module 2. Human Systems and Patient Assessment
An overview of anatomy and physiology by system of the body is presented. The use of medical terminology (roots, prefixes and suffixes) is emphasized. The standard medical history,

TABLE 1. Current Advanced Prehospital Medications

Sodium Bicarbonate
Lidocaine*
Calcium Chloride
Atropine
Epinephrine (1:10,000)
Dextrose 50% in water

* Bolus injection only

TABLE 2. Common Paramedic Medications

Sodium Bicarbonate
Lidocaine*
Calcium Chloride
Atropine
Epinephrine (1:1000)
Epinephrine (1:10,000)
Dextrose 50% in water
Diphenhydramine
Dexamethasone
Furosemide
Naloxone
Nitroglycerin tablets
Isoproterenol*
Intropin*
Digoxin
Diazepam
Bretylium

* Also for continuous infusion

physical examination, and the orderly process of transfer of information to supervising medical personnel is presented and performed.

Module 3. Shock and Fluid Therapy

Fluid and electrolyte chemistry and physiology with emphasis on manifestations of imbalances (including shock) is presented. Fluid administration (through both central and peripheral intravenous techniques) and the application of pneumatic anti-shock garments are included.

Module 4. General Pharmacology

General groups of drugs and their classifications are introduced along with the specific knowledge of therapeutic effect, indications, contraindications, correct dosage, and side effects for the most commonly prescribed medications (Table 2) encountered in prehospital care. The preparation and administration of continuous infusion medications is also presented.

Module 5. Respiratory System

The detailed anatomy and physiology of the respiratory system and the assessment of a patient with suspected respiratory distress is included, with emphasis on pathophysiology. Techniques of management including oxygen administration, adjunctive equipment, direct laryngoscopy, endotracheal intubation, esophageal obturator airway, and suctioning are included. The skills of transtracheal jet insufflation and placement of flutter valve devices for emergency decompression of tension pneumothorax are presented as well.

Module 6. Cardiovascular System

The anatomy and physiology of the cardiovascular system is reviewed in detail with emphasis on the structure, function, and electrical conduction system of the heart. The assessment of the patient with suspected cardiovascular problems with emphasis on pathophysiology is discussed. The presentations and therapies for various shock states are covered. The interpretation and treatment of basic arrhythmias is covered as well as techniques including CPR, EKG monitoring, cardioversion/defibrillation, phlebotomy, pneumatic anti-shock garment use, carotid sinus massage and intra-cardiac injections.

Module 7. Central Nervous System

The detailed anatomy and physiology of the central nervous system (CNS) is discussed along with assessment of a patient with a suspected CNS disorder. The pathophysiology and management of patients with CNS disorders is discussed in-

cluding the management of the comatose patient, spinal immobilization for trauma, and the administration of diazepam for seizures.

Module 8. Soft Tissue Injuries

The assessment and management of soft tissue injuries is discussed. Psychomotor skills include control of external hemorrhage, the dressing and bandaging of special injuries in specific regions, and the management of burns.

Module 9. Musculoskeletal System

The anatomy and physiology of the musculoskeletal system is included together with patient assessment and management of sprains, strains, fractures and dislocations. Skills emphasized are splinting and immobilizing extremities with traction splints, air splints, and board splints.

Module 10. Medical Emergencies

Discussions center on the identification and management of diabetic emergencies, anaphylactic reactions, exposure to environmental extremes, alcoholism, poisoning, the acute abdomen, genitourinary problems, and the special medical emergencies of the geriatric patient.

Module 11. Obstetrics/Gynecologic Emergencies

The anatomy and physiology of the female reproductive system are reviewed along with patient assessment. The management of an expectant mother, normal delivery, and the care and transportation of a mother and newborn are covered. Abnormal deliveries are discussed for identification purposes. Complications of labor and delivery including postpartum hemorrhage, ruptured uterus, and eclampsia are reviewed.

Module 12. Pediatrics and Neonatal Transport

The unique aspects of dealing with and assessing pediatric patients are explained. The pathophysiology and management of problems primarily seen in pediatric patients including asthma, bronchiolitis, croup, epiglottitis, sudden infant death syndrome and seizures are included. The role of the EMT in a system for neonatal transport is discussed as well. Skills to be mastered are infant and pediatric resuscitation, including intravenous insertion, and the intubation of an infant.

Module 13. Management of the Emotionally Disturbed Patients

The psychological problems the EMT might encounter are covered in detail with specific procedures for handling of each basic type of problem. Emphasis is placed on the identification of behavior patterns and the pitfalls of management of

such patients. The laws governing the handling and commitment of emotionally disturbed patients are reviewed in detail.

Module 14. Extrication/Rescue Techniques

The emphasis is on rescuing and transporting patients involved with hazards such as explosive materials, downed electrical wires, toxic gases and radiation. Special techniques for lifting, packaging and transporting patients are covered in detail.

Module 15. Telemetry and Communications

The use of radio communications equipment including transmission of voice and EKGs is included together with a discussion of the regulations of the Federal Communications Commission and the procedures and protocols for transmission of information to Medical Control.

The higher levels of EMT skill require strict medical control, ie, medical supervision and quality assurance. A small number of dedicated physicians and nurses have been instructors and providers of on-the-air supervision in this extension of the emergency department to the street, but not enough to provide for adequate routine review of performance on a timely basis. Advanced Cardiac Life Support⁶ courses from the American Heart Association have standardized the approach to the patient with an arrhythmia or cardiac arrest both for the advanced emergency medical technicians and for the supervising professionals so that procedural errors should not occur with significant frequency. The Advanced Trauma Life Support⁷ curriculum now being promoted by the American College of Surgeons

may soon be extended to the EMT and nurse level in order to provide for standardization of acute trauma care as well. The Rhode Island Ambulance Service Coordinating Board now has the authority to establish statewide minimum standards for all levels of prehospital care. Standardization of techniques and protocols will relieve many of the system problems which arise from the mobility of both professionals and paraprofessionals and from regional mismatch of approaches to the victim of accident or acute illness.

The support and involvement of physicians throughout the state will be necessary for the design and implementation of a Paramedic program. Without such support and involvement, the system will not be able to provide responsible growth and medical progress in prehospital emergency care.

References

- ¹ Accidental Death and Disability: The Neglected Disease of Modern Society. National Academy of Science, National Research Council, 1966.
- ² Emergency Medical Services Act of 1973. Public Law 93-154. US Congress, House, 93rd Congress, First Session, 1973.
- ³ Emergency Medical Technician. US Department of Transportation, 1973.
- ⁴ Mobile Intensive Care Unit Program. Rhode Island General Law 23-17.6, 1973.
- ⁵ National Standards for Emergency Medical Technician-Paramedic. US Department of Transportation, 1977.
- ⁶ Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC). National Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care. JAMA 244(5):453-509, 1 Aug 80.
- ⁷ Advanced Trauma Life Support Course. American College of Surgeons, Committee on Trauma. Chicago, 1981.

75 Davis Street
Providence, RI 02908

Realism in Health Maintenance — Part I

Certain Fallacies in the Conventional Wisdom Regarding Nutrition and Life Style Are Presented

Alex M. Burgess, Jr., MD
William H. Meroney, MD

The work which follows represents an attempt to suggest the need for an improved relationship between the health advice reaching the public and the state of the art in health maintenance and disease prevention.

Simply stated, the problem seems to relate to the desire of both public and private health advisors to meet the high expectations which have developed in the public mind. The problem is far from simple and defies complete discussion. Ivan Bennett¹ has described a Marcus Welby Syndrome concerning which he says: "Public expectations for medicine are much too high, partly because of the failure of the medical profession properly to inform the public, partly because of the 'Pop Medicine' stimulated by television shows,

where doctors and hospitals must always produce a happy ending in thirty or sixty minutes (less time for the commercials)."

The problem is, of course, quite complex, and many other forces involving the professions, the media, industry, and the public are at work. Agencies and individuals with differing stakes in the process and differing levels of information, motives, and reliability push the public understanding this way and that resulting in misinformation, confusion, and often disappointment.

We agree at the outset that most health advice, even when poorly supported by scientific fact and commercially biased, is rarely malevolent or definitely damaging. There is, however, we suggest, a subtle harm resulting from too high expectations themselves, especially in the long term, which justifies taking thought.

Subtle though the damage may be, we see several kinds. If, as so frequently happens, the rules change or the hoped-for results do not appear, health advice and advisors may become (perhaps are becoming) discredited, and later advice may prove difficult to disseminate effectively.

Further, we see suggestions that a sort of neurotic health-pre-occupation can result, which in turn impairs the quality of life, furthers the uncritical adoption of advice from sources of inferior reliability, and may contribute to an unnecessary increase in the worries that bring the individual into the expensive medical care system.

We cannot attempt to pin down the shifting state of health-knowledge, but will try to suggest a

From the Rhode Island Department of Health and Rhode Island Health Services Research, Inc., Providence, Rhode Island.

Alex M. Burgess, Jr., MD, Consultant, Rhode Island Department of Health and Rhode Island Health Services Research, Inc., Providence, Rhode Island.

William H. Meroney, MD, Director of Professional Services, Rhode Island Department of Health, Providence, Rhode Island.

few points at which the "conventional wisdom" and even official advice are subject to doubt and risk eventual public disappointment. We shall try to suggest some of the factors which participate in producing the problem.

Some Components of the Problem

One might wish for a world in which soberly considered factual health advice based on sound study would be accurately communicated to the prepared minds of a sophisticated public in an unbiased manner at an appropriate time. Several forces seem to act to produce the actual untidy process which we are discussing. At heavy risk of oversimplification, we suggest that prominent among these forces are the judgments and activities of the scientific-professional community, the commercial interests, the communications media, and the general public. We place no blame at particular doors, but shall try to suggest some ways in which components of the problem seem to act.

Much that will be said might apply in clinical medicine, but we shall be dealing primarily with the related field of health-promotion and some of its particular problems.

Special Problems of Advice to the Healthy

Prevention efforts directed at those who are not sick are as old as Medicine itself. A goodly proportion of the Aphorisms of Hippocrates are oriented toward preventive behavior (the current phrase is "life-style"). Partly as a result of past successes in medicine and public health, the focus of preventive interest has shifted from acute and communicable problems to the prevention or postponement of the effects of so-called degenerative disease — the chronic problems of later life in which, unhappily, our insights regarding cause and prevention tend still to be partial at best.

We are probably entitled to treat many of the past developments in microbiology and immunology as established fact. Many of the scientific bases underlying nutrition, carcinogenesis, and the effects of life-style are far less secure. Preventive programs for chronic noncommunicable disease must proceed on treacherous footing.

Clinical medicine has a special advantage in its usual main function of caring for the sick which is lacking in the preventive field. Medicine's patients come to the physician because of worries or symptoms to ask for advice or action. (Communication may often be imperfect, but at least

they are asking for help.) Mr. or Mrs. Patient brings problems to a desired one-to-one encounter and wants answers.

Prevention does not have patients in this sense. It deals with people who are not ill, but has to bid competitively for their attention against a motley throng of advisors. In the main, the effort must be to persuade the individual to adopt improved personal priorities for long-term benefit. It is not hard for Government or Industry to do something to or for the individual, but quite another matter to persuade healthy individuals to change habit patterns in their own behalf.

Nowhere is this clearer than in the field of transportation. No one doubts that motor vehicle accidents are a most important source of disability and death, often in the young. Improved driving skills, judicious use of drugs including alcohol, and voluntary self-protection with the use of seat belts, for example, are desirable and vigorously advocated. Highway death rates are lower and have not since reached the level seen just before and after 1930, when drivers were fewer, speeds slower, and national prohibition was in force.

It seems obvious that the reductions in death-rates since that time have been produced by engineering and law. Cars are stronger, brakes better, traffic control improved, roads better, tires much better, and periodic car inspections have been mandated. There is no evidence that drivers drive much better, that safety advice is heeded, or that speed-limits are observed, and alcohol is a common passenger today. Clearly, preventive interventions aimed at the reduction of highway deaths have had some effect, but with little help from drivers themselves.

In prevention, too, it seems much more difficult to obtain funding and support for programs than in the care of the sick. A pamphlet bearing the picture of a sad-faced child on crutches pulls not only at the heart-strings, but at the purse strings as well. There is not a good preventive equivalent. The product of preventive success is uniformly unspectacular. The beneficiaries of preventive service lack drama. The car which did not get smashed, the infant that did not die, the person who did not get smallpox, or the man who did not have a heart attack fail to excite anyone. Small wonder then that services to the sick, disabled, or malformed are easier to "sell" than those for the healthy.

It is because of these difficulties that we must be especially respectful of those involved in the ground swell of preventive interest that has been

growing, often under the not-too-clearly defined banner of Health Education. We do not know whether the process is better carried out by health professionals with educational skills or by educators with health training. Perhaps no answer is needed.

The New on Trial

One interesting problem is the question of the method by which a new product, a new procedure, or a new concept comes to general public attention and to acceptance or rejection. While the process is probably complex, in general it tends to follow a relatively standard pattern.

The curve is called the curve of Final Acceptance Development, which we will refer to by the acronym, FAD. This is by no means a phenomenon peculiar to health matters, but rather one which can be seen in the dissemination and acceptance of anything new. It has been noted in art, music, architecture, clothing, games, religion, politics, education, and anything which shows change and development. We have added reference numbers to the curve to permit its discussion in the context of health and medical developments.

At *point one* on the curve (Figure 1) something new appears, perhaps a procedure, a drug, a concept, or what you will. It may actually be old and newly recognized, but at this point it is known mainly by its originators or proponents, until in some manner it is brought to light, perhaps as a paper at a scientific meeting, or a journal article. Soon, at *point two*, the word is spread beyond immediate technical circles reaching the general public, usually with the help of a play in the media. By this time it differs slightly from its

original description and may be overstated, misunderstood, and perhaps simplified. In a short time a sequence of public reactions take place, and at *point three* the curve begins a steep climb from "interest" to "enthusiasm," "injudicious over-acceptance," and "unrealistic expectations" at *point four*. After a period which may vary greatly, a new phase, *point five*, begins. Reactions begin with "dawning skepticism," "growing disappointment," "doubts and fears" (again an assist from the media), "disrepute," "downright rejection," and "disuse," reaching *point six*. For some items, the process ends here, but if there was merit in the original idea (and sometimes in its absence) a further slow rise occurs through "sane evaluation" to some final level of acceptance at *point seven*.

It is not difficult to fit a wide variety of examples to the curve. One of us encountered it years ago in a discussion of vitamins in nutrition. It appears that in this instance the process following point five has been much delayed, perhaps due to the low toxicity of the product, the commercial profitability, and the adoption of vitamins as convenient placebos by the medical profession.

Clearly, there are curves within curves. Each broad general curve is a compound of many subsidiary curves which contribute to it vector-fashion. A general curve for immunization would include those for smallpox, typhoid, measles, and others, not forgetting the poliomyelitis curve, wrinkled by the "Cutter Incident" and the abruptly aborted one for "swine flu."

Medicine and Public Health themselves go over this roller-coaster repeatedly, and when they hit the down-grade the curves for charlatanism rise. Failure of an anticipated cancer breakthrough will necessarily contribute to the slow-developing curve for laetrile.

Going back to our earlier mention of some disadvantages that arise from unrealistic expectation, this is clearly a point four type phenomenon and can well start the down-grade of many FAD curves for our presently proposed preventive strategies.

Dramatis Personae

The many ways in which individuals and groups contribute to the generation of unrealistic public expectations cannot be dealt with entirely separately, and certainly not completely. We shall, however, suggest a few ways in which the scientific-professional establishment, the commercial interests, and the media play their parts.

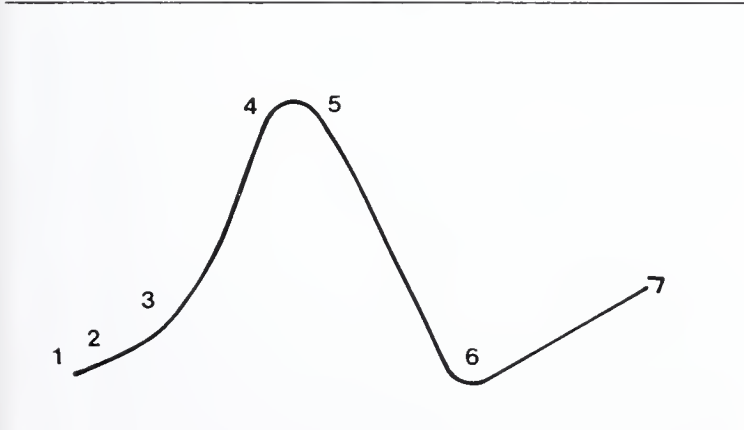


Figure 1. Curve of Final Acceptance Development (FAD).

The Scientist and Health-Worker. Workers in basic and clinical research, physicians, nutritionists, and others are perhaps less susceptible to public, commercial, and media-related pressures than is the average person, but they are by no means immune. In this sense, they function like a special case of the general public. Their own direct contribution to the FAD curve frequently results from premature or injudicious release of new information which may touch off activity by the media and the commercial interests. If there is a main source of stimulation for public interest and expectation, it is here.

There are surely many motives which may lead the scientist or health-worker to release findings and conclusions with a minimum of delay. They may be pardoned if they are somewhat biased as to the importance and finality of their results. They may sometimes feel an unwarranted confidence in the effectiveness of the cautions and caveats with which they have surrounded their statements, forgetting that these usually drop out of the versions of their report which come before the nontechnical audience. A few investigators, indeed, may simply have an inflated interest in personal prestige. But even when these factors are absent, there is a special version of the "publish or perish" phenomenon of which they are acutely aware. Grant and contract support usually tends to be awarded to applicants with the longest list of journal articles and presentations in national meetings. In several other ways the success of the worker is related to the degree of exposure to peers and the public. Sometimes a single completed research project will lead to a preliminary report, a couple of oral presentations, and a bit-by-bit serial unfolding of the final result in a series of articles, when one might have sufficed. Additional publications increase the probability of notice by the press.

Most of the important scientific and technical journals are carefully monitored by the press, and at most major scientific meetings there is a "press-room" where abstracts of the major presentations are stacked as handouts, or perhaps prewritten press releases are provided. The reporter need not even attend the presentation, and a relatively cautious or tentative report is at risk of being released on the national press-wires as a "breakthrough."

The motivation for public recognition is so compelling that a normally quiet and conservative scientist may be interviewed on national television before his results reach his technical peers. A physician that we know has defended his use of

year-old copies of the *Reader's Digest* in his waiting room as his attempt to prevent his patients from being ahead of him in the latest scientific news. One prestigious medical journal declines to publish articles that have had any prior release, but some others feel that this is an infringement of the author's freedom of expression.

It is not easy to explain the scientific elder statesman, perhaps an award-winner, from fields other than health, who assumes the mantle of general authority and lends his personal reputation to major publications in health, and some of his statements have lasting effects in the public mind.

Not only is the individual investigator or health-worker a factor in producing public hopes and fears, but, more prominently, the corporate activity of professional and paraprofessional health agencies, acting in the name of public service, contribute significantly. The major public philanthropy of the wealthy seen in earlier generations has given place to a sort of fractional philanthropy of the ordinary citizen. In order that the numbers of contributions may take the place of size, agencies must mount a continuing promotional effort, often called "public education." Not uncommonly, promises of impending breakthroughs are held out with the strong suggestion that they await only the public dollar. Sooner or later this must produce disappointment and cynicism in the public mind, discrediting even non-promotional educational efforts.

Less easy to explain is the involvement of tax supported governmental agencies in the same game, further influencing the FAD curve. It may in part merely reflect an attempt to compete with the private agency for attention, or it may be a bid for the approval of the people who ultimately determine their appropriations or other financial allocations.

In these ways, and others, individuals and agencies may play the underlying role in the initiation and development of the FAD curve. One wonders whether it might be subject to some modification. It is the scientists most of all who are equipped to understand the problem, and conceivably they might one day be persuaded to do something about it.

The Hucksters. Our economic system is geared to advertising and related puffery in which acceptance of exaggeration, partial truth, and plausible misrepresentation is built in, and even the non-advertising content of the media may be commercially slanted. The fine hand of Madison Avenue

is everywhere evident. The impact on the public mind, including that of the professionals in health, results from highly sophisticated and well-financed programs.

Frequently what is basically advertising masquerades as education, concerning specific dietary items, "natural" foods, and the like. Witness a New York Department Store extravaganza featuring a parade of athletes, pretty girls, and health-food supporters.²

Even advertising of items not directly health-related often tends to accept health-maintenance assumptions, some poorly founded, and lends them subtle support. When an actor with a medical image says, "You happen to be drinking X brand of decaffeinated coffee," not only is the accepted pharmacology of caffeine evoked, but a host of other associations ranging from legitimate suspicion to old wives tales are given unspoken reinforcement and support.

Even advertising of items widely assumed to have adverse health effects carry health messages. The cigarette, with its customary routine precautionary "may be injurious to your health," is a good example. This direct precaution does not override the advertiser's presentation of association with the wide open spaces, photogenic models in the bloom of youth and good health, and the featuring of the athlete — for example, the sponsorship of athletic events. Even the competitive emphasis on low content of tar and nicotine carries with it the assumption that the use of cigarettes may be acceptable in a health maintenance program if only a particular product is used, an assumption not widely acceptable outside the tobacco industry. It is difficult to visualize an effective antidote to this sort of propaganda.

Direct counter-propaganda tends to be weak. It lacks the resources and techniques that would be demanded and is unlikely to be able to acquire them. Personal habits and short-term priorities will continue to resist change, and the relatively weak components of health education may not be able to compete.

The Media. Even at their most irresponsible, the media's written and spoken statements make a certain sort of sense in the existing socioeconomic framework, where sensationalism yields increased audience or circulation, and this in turn yields advertising revenues. The success that has already been scored in creating a widespread health preoccupation makes further health information, whether valid or not, an advantageous territory for exploitation.

Mention of media activities runs through much of our entire discussion and need not be detailed here. The health journalist and commentator has become an important member of the journalistic team alongside colleagues specializing in sports, business, international affairs, weather, entertainment, and the rest. He or she can produce a superb product when the situation makes it profitable. Unhappily, conditions seem more often to favor the success of the extreme sensationalism that is seen in the sort of news media one encounters at supermarket check-out counters. These publications claim a very large readership, which must reflect a high level of gullibility.

Wherever advertising is involved, competitive pressures tend to determine what gets emphasis. The glut of books, where advertising is absent or concealed, is less easy to explain. The shelf space occupied by paperbacks devoted to "health" in the average bookstore is little short of astonishing. The titles are seductive, the covers eye-catching, and the content variable, ranging from standard to bizarre. The health-preoccupied public mind seems to furnish an insatiable, and uncritical, group of customers, which leads to tidy profits for the author, the publisher, and the retailer. In the *New York Times Book Review* for 20 September 1981, the list of fifteen non-fiction "Best Sellers" includes five dealing with nutrition and diets, including three of the top four.

A circular relationship, a vicious cycle if you like, seems to have developed wherein health information creates a demand for more of the same, and 'round and 'round it goes, in print and on the air.

And the Poor Public. Let us not unduly criticize the lay public for playing its part in this problem. Its role is mainly passive, acting as beneficiaries or victims of the many influences of which they are the target. Those who become activists, as some do, in health promotion do so on the basis of their preexisting health knowledge, whether sound or not, their interpretation of the health information or propaganda which may come their way, and their interest in the health of others.

Normal health education in the schools does little to prepare them for this. In the 1700s Percivall Pott, a distinguished English surgeon, said: "The desire of health and ease, like that of money, seems to put all understandings and all men, upon a level. . . . Each party resigns his understanding, swallows greedily, and for a time believes implicitly, the most groundless, ill-founded and delusory promises; and nothing but

loss and disappointment ever produce conviction.”³ One senses a need, even on the part of the most highly educated, to dispute established wisdom in favor of something purporting to be new, different, or even miraculous. A patently groundless system of diagnosis and treatment using colored lights, “Spectrochrome Therapy” marketed by one D. P. Ghadiali in Malaga, New Jersey a few decades ago, never became a public passion, but, despite official verdicts of fraud, it continued to recruit practitioners and patients, and not just from the ignorant.

Some have cynically stated that health information is credible in inverse relationship to the quality of the paper on which it is printed. This may be true in some cases but it does not consider the

extraordinary force of the slick products of Madison Avenue and its effect on many whose understanding is most important.

(Concluded in the December 1982 issue of the Journal)

References

- ¹ Bennett I: Technology as a shaping force, in Knowles JH (ed): *Doing Better and Feeling Worse*. New York, Norton, 1977, pp 125-133.
- ² The New York Times, August 16, 1981, p 21.
- ³ Pott P: General remarks on fractures and dislocations, cited in Strauss MB (ed): *Familiar Medical Quotations*. Boston, Little Brown & Co, 1968, p 479.

75 Davis Street
Providence, RI 02908

Hospitalization for Tuberculosis

Hospital Stay Is Prolonged by Delay in Considering Diagnosis and by Non-TB Problems

Gerald A. Faich, MD, MPH
Robert Mullan, MD

Hospitalization for tuberculosis (TB) is of interest for several reasons. Although the incidence of TB has decreased over the years, it remains a serious problem. In 1979, 27,669 new US cases of active TB were reported to the Centers for Disease Control.¹ Additionally, TB continues to be a disease of public health importance because of its serious nature and its communicability. We examined all 1979 acute care hospital discharges with a diagnosis of TB in Rhode Island to determine: a) the incidence and nature of hospitalized cases of TB; b) the diagnostic and treatment procedures used; c) the cost associated with these hospitalizations; and d) the frequency of reporting of hospitalized cases to the Rhode Island Department of Health (RIDH).

Methodology

All 15 acute care nonfederal hospitals in Rhode Island used the Professional Activity System (PAS) to record discharge diagnoses coded according to the International Classification of Diseases (ICD). We searched the 1979 PAS dis-

charge files for both primary and secondary TB discharge diagnoses (ICD codes 010.00 through 018.00). Further information was then abstracted from the hospital charts of patients so identified. This information included data on source of payment, demographic variables, diagnostic procedures, therapeutic measures, and length of hospital stay. We also checked the records of the RIDH, Division of Chest Diseases to see whether the hospitalized cases had been reported.

For the purpose of this study, cases discharged with a diagnosis of TB were classified as: 1. Active pulmonary TB (a. new confirmed, b. new possible and presumptive, c. relapsed, and d. continuing), 2. Other "TB" (a. nonactive — old TB, b. extrapulmonary TB, and c. atypical — non-TB — mycobacterial pulmonary infection), and 3. Nontuberculosis.

A case of pulmonary TB was considered active if 1) there was radiologic evidence compatible with pulmonary TB and a culture (sputum, tissue, gastric) positive for *M tuberculosis* (confirmed case) or 2) if there was a smear positive on staining for acid-fast bacillus (presumptive case). A case was considered possible pulmonary TB if radiologic changes consistent with TB were present without another etiology and a positive skin test for TB was documented. Cases were considered to be new if there was no history of clinically evident TB in the past. A relapsed case was one in which there was a past history (more than 18 months prior to admission) of TB and acid-fast bacillus was shown on smear or *M tuberculosis* was found on cultures. A continuing case was con-

Gerald A. Faich, MD, formerly Associate Director, Rhode Island Department of Health, Providence, Rhode Island.

Robert Mullan, MD, former Acting Chief of the Division of Epidemiology, Rhode Island Department of Health, Providence, Rhode Island.

sidered one diagnosed within 18 months of admission and receiving tuberculosis chemotherapy.

The "other TB" category consisted of old pulmonary TB listed as a secondary diagnosis with no evidence of progression or communicability. Generally these cases had stable chest roentgenograms for long periods of time, had received a complete course of TB therapy in the past, or both. Also placed in the "other TB" category were atypical mycobacterial (culture confirmed) infections and extrapulmonary TB (culture or smear based).

In the nontuberculosis category were placed those cases for which there was no evidence of TB in the chart. Often this consisted of patients discharged with a diagnosis of possible TB who were later discovered to have another etiology for their pulmonary lesions. Others in this category included those inaccurately diagnosed or coded as pulmonary TB with no supporting evidence (eg, normal chest roentgenograms). Still others in this category were discharged with a diagnosis of possible TB pending return of sputum cultures which were subsequently negative.

Results

1. Classification of cases:

There were 107 discharges that carried a primary (n=57) or secondary (n=50) diagnosis of TB. Ninety-eight persons accounted for these 107 discharges; that is, there were nine repeat admissions during the one year of study. Of these 98 persons, 56 could be classified as having active pulmonary TB. Twenty-two were in the "other TB" category and 20 did not have TB (Figure 1). The average length of stay for the 107 admissions was 18.3 days; in total, these admissions accounted for 1,962 hospital days.

2. Extrapulmonary TB:

The five extrapulmonary TB cases ranged in age from 33 to 73 years of age; two were males and three were females. All were foreign born. All were confirmed by biopsy and all were reported to the Rhode Island Department of Health. Additionally, all were started on two or more anti-tuberculous drugs.

3. Active Pulmonary TB:

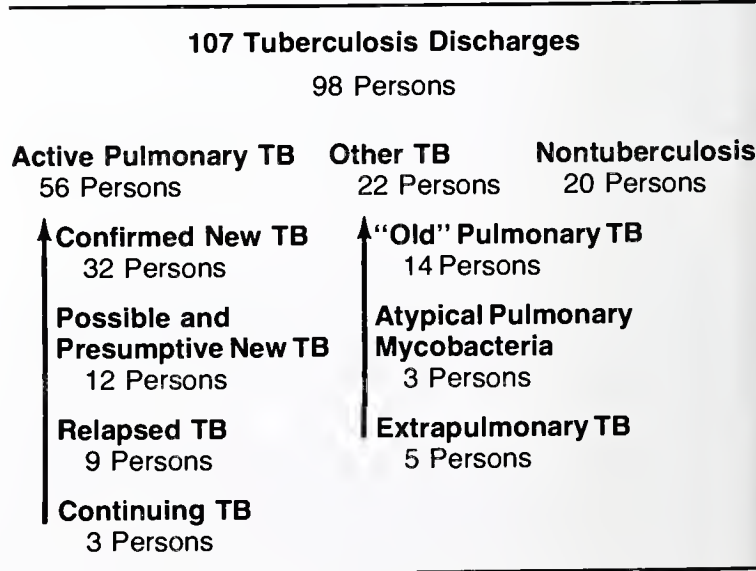
A. Demographics and Associated Diagnoses: The 56 persons categorized as confirmed, presumptive, possible, relapsed, and continuing pulmonary TB were admitted to hospitals in the state roughly in proportion to the total number of general admissions to hospitals. Rhode Island Hospital

accounted for the largest number of discharges with a total of 19. There was little difference in the demographic distribution of the several subgroups of active pulmonary TB. Seventy-eight per cent of these cases were male. The mean age was 53 years (1 SD = ±22 years). Socioeconomic status (SES) distribution showed that 46 per cent of cases were from the poverty and lower SES group while the remainder were in the middle and upper SES category. Four of these cases were recent immigrants (less than five years), six were immigrants who arrived in the United States (US) more than five years ago, three were American Indians, and the remaining 43 were US born or of unknown immigrant status.

Twelve of the 56 cases had some indication of alcoholism in their hospital chart either as a discharge diagnosis or a statement in the patient history. Of these, five were patients classified as relapsed cases.

B. Clinical Analysis: Cases presented with a variety of signs and symptoms mainly consisting of fever, cough, shortness of breath, weight loss, and hemoptysis. All (by definition) had abnormal chest roentgenograms. Acid-fast smears were performed on all patients with 20 of 47 showing a positive sputum smear and 17 of 25 patients having another tissue (bronchial washing, gastric, lung tissue, or pleural fluid) positive on smear. Sputum cultures were obtained for 86 per cent of these patients, and 28 of 38 returned culture reports were positive (73 per cent). For the 25 patients with recorded tuberculin skin test results, 44 per cent were positive. Additionally,

Figure 1. Tuberculosis Discharges from 15 Acute Care Hospitals in Rhode Island during 1979.



charts for 12 patients noted that prior tuberculin tests were known to be positive. No data were available on the tuberculin status of the remaining 19 cases (34 per cent).

Treatment consisted of isoniazid (INH) alone for one patient, two drugs for 16 patients, and three or more drugs for the remainder. Most patients were treated with some combination of INH and ethambutol, rifampin, or both. Only three patients received para-aminosalicylic acid (PAS), and only 14 patients received streptomycin. There were four deaths — three in those with “relapsed” TB and one in the nontuberculosis category.

C. Reporting: All confirmed and relapsed cases were reported to the Rhode Island Department of Health; 91 per cent were reported within one month of hospital discharge. Seventy-five per cent of the possible and presumptive cases were reported to the Rhode Island Department of Health.

D. Hospital Utilization, Follow-up, and Cost: These 56 persons accounted for 62 admissions with a mean length of stay of 19.5 days. The relatively long duration of hospitalization was related to the frequent presence of nontuberculous medical problems such as endocarditis, gastrointestinal bleeding, and stroke. In some cases delays in discharge placement prolonged hospitalization. For the 32 confirmed pulmonary TB cases, one was sent to a nursing home, 5 were placed at the Zambarano Memorial Hospital (chronic diseases), and the remainder were followed as outpatients (14 by private physicians, 7 by hospital clinics, 3 by the Rhode Island Department of Health and 2 uncertain).

Payment sources for the 56 persons with active pulmonary TB were: Medicare 17, Medicaid 9, Blue Cross 18, other insurance 3, self-paying 3, and unknown or other 6. The estimated hospital cost for each of these patients was about \$3,900, giving a total cost of about \$218,000.

E. Comparison with all reported TB cases: In 1979, there were a total of 68 new pulmonary TB cases reported to the Rhode Island Department of Health, Division of Chest Diseases. As indicated, 53 of these were hospitalized (56 active pulmonary TB cases minus the three continuing cases) in Rhode Island. Four additional cases were reported on death certification (alone) and three were diagnosed in other states. The remaining eight cases were reported from a variety of outpatient sources.

Summary:

1) Most new pulmonary tuberculosis is still initially diagnosed and treated in hospitals in Rhode Island. 2) Slightly more than half of the hospital discharges for TB are for active pulmonary TB disease that can be considered communicable and of public health importance. Other discharges are for quiescent TB or noncommunicable TB (eg, extrapulmonary disease). 3) Hospitalized patients with active pulmonary TB tend to be older males, half from poverty or lower socioeconomic groups. Many are foreign born. Alcoholism is a frequent concomitant, particularly for relapsed cases. Other medical problems often prolonged the duration of the hospital stay. 4) While hospital charts document acid-fast smears and TB cultures on most patients, tuberculin skin test status is not noted in the chart for 34 per cent of the active pulmonary TB cases. 5) Active pulmonary TB cases are rapidly and completely reported to the Rhode Island Department of Health. 6) Pulmonary TB cases are usually followed after discharge by private physicians or hospital clinics. 7) TB continues to impose a significant economic burden. The 56 communicable cases reported here account for about \$218,000 in hospitalization costs alone.

Discussion

Examination of TB hospitalizations in Rhode Island shows that most new cases of active pulmonary TB are initially hospitalized in the state. Excluding out-of-state and death certificate diagnoses, 87 per cent of new pulmonary TB cases were hospitalized in 1979. However, the unqualified use of hospital discharge diagnoses alone to estimate TB frequency gives an overestimate of the problem, since discharge diagnoses alone do not allow accurate separation of active, quiescent (old), and non-TB diagnoses. The present study showed that only 56 of 107 “TB” discharges had active pulmonary TB. It is reassuring that hospital TB cases have been well reported to the RIDH, as this allows for follow-up and contact tracing.

As elsewhere in the US,¹ TB in Rhode Island tends to occur in poor older males, many of whom are foreign born. Alcoholism is a frequent concomitant of the disease.

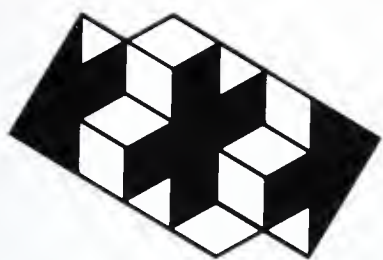
Initial TB treatment no longer requires institutionalization because sputum can be rapidly cleared of acid-fast organisms with chemotherapy.² Why then is prolonged hospitalization for TB so common? It appears that hospitaliza-

tion is used to establish the initial diagnosis. The absence of skin-testing results for one-third of cases might suggest that delays in considering the possibility of TB prolong the diagnostic process. Additionally, hospital stay tends to be prolonged by non-TB medical and placement problems and not by TB therapy *per se*. It is gratifying that long-term hospitalization for TB has been reduced markedly in Rhode Island; only 13 per cent of new pulmonary TB cases in 1979 were placed in chronic care hospitals.³

References

- ¹ Tuberculosis in the US, 1979. Atlanta, Center for Disease Control. DHHS Publication No. (CDC) 82-8322, 1981.
- ² Glassroth J, Robins AG, Snider DE: Tuberculosis in the 1980's. N Engl J Med 302(206):1441-1450, 26 Jun 80.
- ³ Guidelines for long-term institutional care of tuberculosis patients. American Thoracic Society. Am Rev Resp Dis 113(3):252-253, Mar 76.

75 Davis Street
Providence, RI 02908



Blackstone Valley Surgicare

Easier for you, nicer for them.

- Same-Day Surgery facilities for general surgeons, gynecologists, plastic surgeons, ophthalmologists, oral surgeons, otolaryngologists, orthopedists
- Managed by physicians with the doctor in mind
- Open staff
- General anesthesia
- Block bookings
- Modern, pleasant environment
- Nursing staff exclusively oriented to the ambulatory surgical patient
- Easy access from Route 95; plenty of parking
- Full Blue Cross and commercial insurance coverage
- Accredited, National Society for Free Standing Ambulatory Surgical Care

Call 728-3800 for more information and bookings.

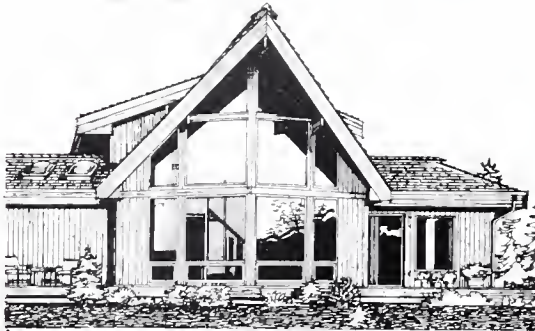
Blackstone Valley Surgicare, Inc.
333 School Street
Pawtucket, Rhode Island

Solar cedar.

A Lindal Cedar Home can help to significantly reduce your fuel bills because it's ideally suited for passive solar adaptation. We offer you 60 different fuel saving homes with a multitude of features engineered specifically for energy efficiency, a unique building system, and a special Solar design service.

And, a Lindal Solar Home may qualify for substantial tax benefits that could reduce your initial costs.

Our Lindal Solar Factbook is available free, when you visit us or send \$3 for our 52-page color Planbook.



LINDAL CEDAR HOMES®

Independently Distributed by

Trident Enterprises
201 Prospect Avenue
Wickford, R.I. 02852
(401) 294-9162

☐ Enclosed is \$4 for the 52-page Planbook.

Name _____
Street _____
City _____ State _____ Zip _____
Phone _____ Location of building lot _____

HEALTH HAVENS NURSING HOME

East Providence

PRIME LOCATION

Centrally located to Rt. 95, KCMH, and Apponaug.

Suitable for medical, paramedical or professional office. 1000-8000 sq. ft. For sale or lease. Will build to suit. **738-6611.**

PARK AVE. PROFESSIONAL BLDG. 1020 Park Avenue Cranston, R.I.

Modern completed medical office suite available, including 3 examining rooms, lab room, private office, reception room, clerical office, with all facilities. 1144 sq. ft.

353-5555

EMERGENCY MEDICINE PHYSICIAN.

Private facility. Full time. Emergency medicine background. Salary negotiable. May start immediately. Call 725-4100 weekdays, 9 AM-5 PM.

The Aged Person: Rehabilitation Needs

Grand Rounds

Monday, November 29, 1982
8:30-12 Noon

Regan Building — Auditorium
General Hospital
Rhode Island Medical Center
Cranston, R.I.

All Health Professionals Are Invited
CME Credits

Rhode Island Medical Journal

December 1982
Volume 65, Number 12



CONTRIBUTIONS

- 499 Ten Years Before "M*A*S*H"
507 Realism in Health Maintenance — Part II
515 A Primary Lung Cancer in a Chronic Lymphocytic Leukemia Patient

NEWSLETTER

EDITORIAL

EDITOR'S MAILBOX

BOOK REVIEW

LIBRARY
UNIVERSITY OF CALIFORNIA
JAN 5 1983

When your overweight patients seek your help with a weight reduction plan...

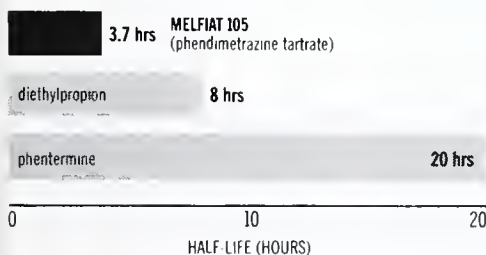


The benefits will outweigh the risks when you prescribe MELFIAT® 105

Because MELFIAT 105 effectively controls appetite. MELFIAT 105 (phendimetrazine tartrate), an effective anorexiant, provides the appetite control overweight patients often need to begin a successful program of weight reduction. And the positive results of initial short-term therapy with MELFIAT 105 can help motivate them to a lifelong commitment of weight control.

Because MELFIAT 105 has a 3.7 hour half-life and low abuse potential. Therapeutic efficacy combined with a short half-life and minimal abuse potential make MELFIAT 105 the drug of choice in the treatment of exogenous obesity. Because MELFIAT 105 has a short half-life, it minimizes drug accumulation and helps to eliminate such effects as disturbed sleep patterns. And, because MELFIAT 105 has significantly lower abuse potential than the amphetamines,¹ there's less risk to your patients. According to a NIDA (National Institute on Drug Abuse) report, phendimetrazine appears to be the least abused anorexiant when compared to phentermine and diethylpropion.²

Half-life comparison of MELFIAT 105 and other anorexiant²



MELFIAT® 105 UNICELLES® C^{III}

(phendimetrazine tartrate)
Sustained-Release Capsules 105 mg

Because MELFIAT 105 is in a sustained-release capsule. MELFIAT 105 provides your patients with continuous drug delivery for appetite control that lasts throughout the day and helps to eliminate compulsive snacking and overeating at meals. In addition, the sustained-release capsule form maintains more constant blood levels of MELFIAT 105...without peaks and valleys.

Because MELFIAT 105 offers convenient, once-a-day dosage. MELFIAT 105 is available in a convenient capsule containing 105 mg. The simple morning dosage regimen is designed to encourage compliance, minimizing the chance of missed doses and assuring optimum therapeutic results.

Because MELFIAT 105 is from Reid-Provident Laboratories, Inc. Reid-Provident has the highest standards of quality to assure that only the finest products reach you. An advisory board of research scientists, physicians, pharmacists, and other technical staff continually review existing products and new product proposals to make sure that the latest pharmaceutical technology is used in their design and manufacture. That's because Reid-Provident is committed to you and your patients.

For more information please write to Reid-Provident Laboratories, Inc. 640 Tenth Street, N.W. Atlanta, Georgia 30318

References: 1. Sheu YS, Ferguson JA, Cooper JR: *Evaluation of the Abuse Liability of Diethylpropion, Phendimetrazine, and Phentermine*, unclassified document ADAMHA, HHS, Office of Medical and Professional Affairs, NIDA, 1980. 2. Douglas JG, Munro JF: The role of drugs in the treatment of obesity, *Drugs* 21:362-373, 1981.

MELFIAT® 105 UNICELLES® C^{III}
(phendimetrazine tartrate) 105 mg Sustained-Release Capsules

INDICATIONS AND USAGE: Melfiat® 105 (phendimetrazine tartrate) is indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class (See CLINICAL PHARMACOLOGY) should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: Tolerance to the anorectic effect usually develops within a few weeks. When this occurs, the recommended dose should be discontinued. Phendimetrazine tartrate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly.

Drug Dependence: Phendimetrazine tartrate is related chemically and pharmacologically to the amphetamines. Amphetamines and related stimulant drugs have been extensively abused, and the possibility of abuse of phendimetrazine tartrate should be kept in mind when evaluating the desirability of including a drug as part of a weight-reduction program. Abuse of amphetamines and related drugs may be associated with intense psychological dependence and severe social dysfunction. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high-dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG, manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxication is psychosis, often clinically indistinguishable from schizophrenia.

USAGE IN PREGNANCY: The safety of phendimetrazine tartrate in pregnancy and lactation has not been established. Therefore, phendimetrazine tartrate should not be taken by women who are or may become pregnant.

USAGE IN CHILDREN: Phendimetrazine tartrate is not recommended for use in children under 12 years of age.

PRECAUTION: Caution is to be exercised in prescribing phendimetrazine tartrate for patients with even mild hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of phendimetrazine tartrate and the concomitant dietary regimen. Phendimetrazine tartrate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure.

Central Nervous System: Overstimulation, restlessness, dizziness, insomnia, euphoria, dysphoria, tremor, headache; rarely psychotic episodes at recommended doses.

Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, other gastrointestinal disturbances.

Allergic: Urticaria.

Endocrine: Impotence, changes in libido.

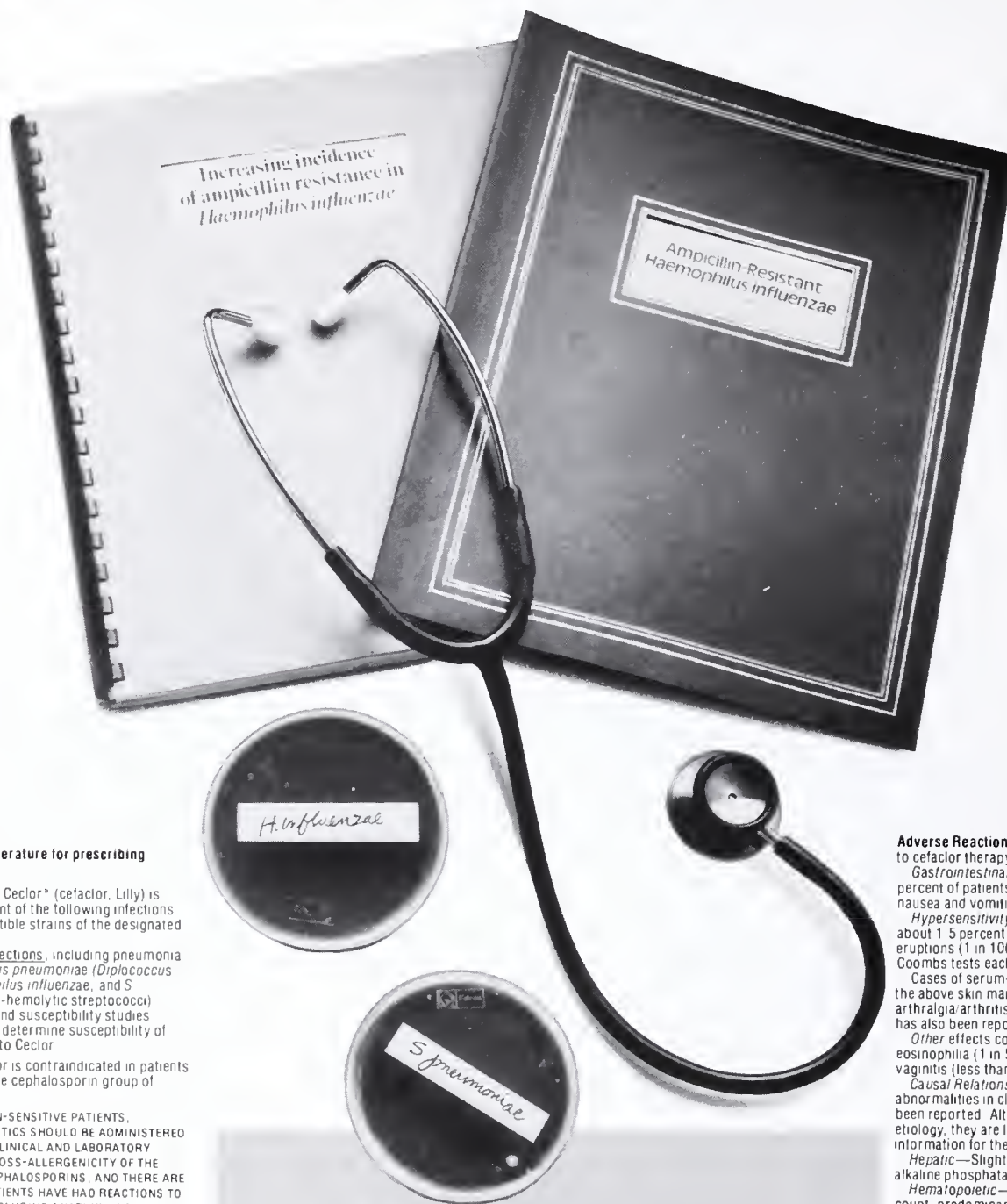
OVERDOSAGE: Manifestations of acute overdosage with phendimetrazine tartrate include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma. Management of acute phendimetrazine tartrate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Acidification of the urine increases phendimetrazine tartrate excretion. Intravenous phentolamine (Regitine) has been suggested for possible acute, severe hypertension, if this complicates phendimetrazine tartrate overdosage.

DOSAGE AND ADMINISTRATION: Since Melfiat® 105 (phendimetrazine tartrate) 105 mg is a sustained-release dosage form, limit to one sustained-release capsule in the morning. Melfiat® 105 (phendimetrazine tartrate) is not recommended for use in children under 12 years of age.

HOW SUPPLIED: Each orange and clear sustained-release capsule contains 105 mg phendimetrazine tartrate in bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary Consult the package literature for prescribing information.

Indications and Usage: Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinintest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

Cefaclor®

cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below. *Gastrointestinal* symptoms occur in about 2-5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1-5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain: Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[103080R]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefaclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975.
2. Antimicrob. Agents Chemother., 11:470, 1977.
3. Antimicrob. Agents Chemother., 13:584, 1978.
4. Antimicrob. Agents Chemother., 12:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

100061

Rhode Island Medical Journal

EDITORIAL STAFF

Seebert J. Goldowsky, MD
Editor-in-Chief

Karen Challberg
Managing Editor

John E. Farrell, ScD
Managing Editor Emeritus

EDITORIAL BOARD

Guy A. Settipane, MD
Chairman

Stanley M. Aronson, MD
Contributing Editor

Maurice M. Albala, MD

Paul Calabresi, MD

Pierre M. Galletti, MD, PhD

Donald S. Gann, MD

***John F. W. Gilman, MD**

***Edwin J. Henrie, MD**

***Patrick R. Levesque, MD**

Robert V. Lewis, MD

Umberto Capuano
Student

*Member of Publications Committee

***Peter L. Mathieu, Jr., MD**

***P. Joseph Pesare, MD**

***Sumner Raphael, MD**

Henry T. Randall, MD

Joseph Amaral, MD
Resident

OFFICERS

Melvin D. Hoffman, MD
President

Leonard S. Staudinger, MD
Vice President

Milton W. Hamolsky, MD
Secretary

Charles P. Shoemaker, Jr., MD
President-Elect

Kenneth E. Liffmann, MD
Treasurer

DISTRICT AND COUNTY PRESIDENTS

Thomas M. Drew, MD
Bristol County Medical Society

Edward F. Asprinio, MD
Kent County Medical Society

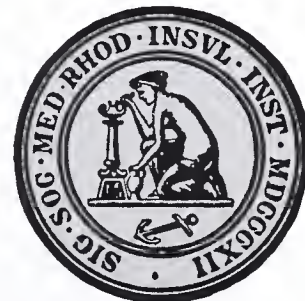
Elie J. Cohen, MD
Newport County Medical Society

Robert S. Burroughs, MD
Pawtucket Medical Association

Herbert Rakatansky, MD
Providence Medical Association

Douglas A. Rayner, MD
Washington County Medical Society

Alban J. LeBlanc, MD
Woonsocket District Medical Society



PORTABLE X-RAY SERVICE OF RHODE ISLAND

100 HIGHLAND AVENUE
PROVIDENCE, R.I.
331-3996

120 DUDLEY STREET
PROVIDENCE, R.I.
331-3996

154 WATERMAN STREET
PROVIDENCE, R.I.
273-0450

38 HAMLET AVENUE
WOONSOCKET, R.I.
766-4224

Serving Greater R.I.

**Providing Diagnostic X-Ray, EKG, Holter-Monitoring (by appointment)
and Ultrasound Services (by appointment) to:**

- *Nursing and Convalescent Homes**
- *Shut-ins and Private Home Patients**
- *Post Surgical Patients**

Our service is certified by the R.I. Department of Health. Reimbursement is provided by Medicare, R.I. Blue Shield and Medical Assistance.

***Same Day Examination
and Reporting***

**24 Hour Service
7 Days a Week**

***“To Some People We’re
More Than A Service.”***

TABLE OF CONTENTS



485 **NEWSLETTER**

493 **EDITORIAL**

495 **EDITOR'S MAILBOX**

497 **BOOK REVIEW**

CONTRIBUTIONS

- 499

Ten Years Before “M*A*S*H”

Rhode Island Hospital in the CBI Theater in World War II — One Man’s Memories

John S. Dziob, MD, FACS
- 507

Realism in Health Maintenance — Part II

Certain Fallacies in the Conventional Wisdom Regarding Nutrition and Life Style Are Presented

Alex M. Burgess, Jr., MD William H. Meroney, MD
- 515

A Primary Lung Cancer in a Chronic Lymphocytic Leukemia Patient

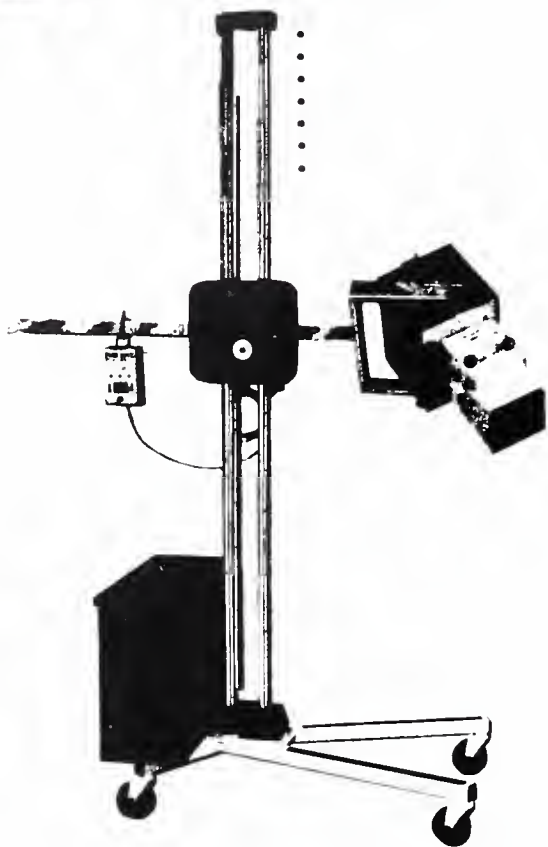
High Incidence of Concomitant Tumors Is Not Readily Explained

Abdul N. Memon, MD John Yashar, MD

COVER

Photo of nurses in the 48th Evacuation Hospital at Murfreesboro, Tennessee (October, 1942). See pages 493 and 499.

H X-RAY



Home X-Ray service of R.I.

595 Putnam Pike Greenville, R.I. 02828

**PROVIDING DIAGNOSTIC X-RAY & EKG
SERVICES TO:**

**NURSING HOME, CONVALESCENT &
PRIVATE HOME CARE PATIENTS**

24 Hour Radiological Interpretations
by Board Certified Radiologists

7 Days a Week

CALL 949-1170

"WE CARE"



The Difference...

At Starkweather and Shepley . . .
the *Difference* is that your insurance problems are solved
Before and After you suffer losses.

At Starkweather and Shepley you get the one indis-
pensable element in Business Insurance . . . *Personal*
Service by an agent who knows you and your business.

Telephone: (401) 421-6900

Newsletter

December 1982

Melvin D. Hoffman, MD, Editor
Karen Challberg, Associate Editor

RIMS TESTIFIES ON THE FUTURE OF HEALTH PLANNING

Dr. Melvin D. Hoffman MD, President, testified at a recent meeting of a Statewide Health Coordinating Council (SHCC) committee to study the future of health planning. In his remarks Dr. Hoffman urged that health planning goals, if they are to be achieved, "must be regarded as attainable and be specific." He also recommended a "built-in and commonly agreed upon system of evaluation" during implementation of goals, and called upon the community of health providers to assure that aspects of cost, quality, and public need are fully explored. Dr. Hoffman said, "It is questionable in our minds that the SHCC should be continued in its present form."

CME REACCREDITATION APPROVED FOR INH, KENT, MEMORIAL HOSPITALS

At a recent meeting of the Educational and Scientific Board it was voted unanimously to approve CME reaccreditation status at the Institute of Mental Health, Kent County Memorial Hospital, and The Memorial Hospital, each for a six-year period from the date of resurvey. It also was voted at this meeting to extend the reaccreditation period for all surveyed and accredited hospitals to six years from the date of the last survey.

RIMS APPOINTEES--REVIEW COMMITTEE, DIVISION OF DRUG CONTROL

The Rhode Island Medical Society has made the following recommendations for appointment to the review committee of the division of drug control of the Rhode Island Department of Health. They are Robert S. Burroughs MD, of Pawtucket, Joseph D. DiMase MD and Richard D. Femino MD of Providence.

INTERAMERICAN COLLEGE SEEKING ACTIVE FELLOWS

The Interamerican College of Physicians and Surgeons, a non-profit, tax-exempt, medical organization, interested in the development of closer relations among the physicians of the Americas, is seeking active Fellows. Those interested may contact the College at 299 Madison Avenue, New York, NY 10017, (212) 599-2737.

RATE OF INCREASE IN THE PRICE OF PHYSICIANS' SERVICES

For the 12 months ending with September, the physicians' services index increased by 9.0 per cent, while the all-services index went up 7.1 per cent and the all-items index increased 5.0 per cent. The medical care price index increased 11.4 per cent, the medical care services index rose 11.6 per cent, and the hospital room charge index went up 15.3 per cent during the 12-month period.

(from AMA Newsletter)

PHYSICIAN OPPORTUNITIES

A general practitioner is needed for immediate employment in Biddeford, Maine. Inquiries should be directed to: David G. Noyes, CPBC, c/o PM New England, Inc., 135 Meadow Street, Warwick, Rhode Island 02886, (401) 737-5822.

A physician is needed to join the staff of the Holistic Health Center in Montpelier, Vermont. Inquiries should be directed to: Holistic Health Center, 15 Pitkin Court, Montpelier, Vermont 05602, (802) 229-4636.

PERIPATETICS

Joseph H. Friedman MD has joined the medical staff at Roger Williams General Hospital as a neurologist and has been named an Assistant Professor of Medicine in the Brown University Program in Medicine.

At a recent American Academy of Pediatrics meeting William Oh MD delivered a paper on the "Use and Abuse of Partial Exchange Transfusion."

Mario Baldini MD, formerly of The Memorial Hospital, has accepted a position at the New England Deaconess Hospital in Boston. Dr. Baldini also will become a member of the faculty of Harvard University.

Richard Shulman MD, Director of the Division of Cardiology at The Miriam Hospital, has been appointed Physician-in-Chief at that hospital.

THIRD PARTY PAYMENT PROGRAM: STATE OF RHODE ISLAND

A summary of the Rhode Island third party payment program prepared by Peter L. Mathieu, Jr., MD, past president of the Rhode Island Medical Society, is available by request from the Society office. Dr. Mathieu summarizes eligibility statuses under Medicaid; the state's relationship to Medicare; the state's screening, diagnosis and treatment program for children; and recent major changes in federal regulations governing Medicare and Medicaid. To obtain a copy, call (401) 331-3207.

RIMS TESTIMONY ON PROPOSED RULES AND REGULATIONS FOR LIMITED MEDICAL REGISTRATIONS

Mr. Brian Clarke, Assistant Executive Director, has testified on behalf of the Rhode Island Medical Society on proposed rules and regulations for limited medical registrations. The Society supported the proposed rules and regs with a recommendation of an amendment which would expose individuals with limited registrations to all the disciplinary review procedures existing for fully licensed physicians, including the Mediation Committee of the Rhode Island Medical Society, the various review divisions of Blue Cross and Blue Shield, the Board of Medical Review, and the Division of Professional Regulation.

SOCIOECONOMIC REPORTS ON CASSETTES FROM AMA

Twice monthly socioeconomic reports on half-hour cassettes, titled Audio Medical News, are being coproduced by the AMA and Audio-Digest Foundation. The reports cover such subjects as health legislation, medicolegal problems, cost containment, health insurance, and government affairs. Annual subscription is \$96, with AMA members and Audio-Digest subscribers receiving an extra month's program free. To receive a complimentary program for preview, call 1-800-423-2308.

RIMS POSITION: SECOND RHODE ISLAND HEALTH PLAN

At a hearing on the Second Rhode Island Health Plan held in Providence on November 30, 1982, Dr. Peter D.T. Clarisse, chairman of the RIMS subcommittee to study issues in the Plan, spoke for the Society. Dr. Clarisse noted that the goals of the Plan are admirable, but that "the true value of the goals and targets has to be in their implementation." He also recommended that assessment of impact of the proposals on quality and cost of care should be "built into" their implementation.

WHAT HEALTH SERVICES ARE INCREASING?

In a survey conducted by the Public and Federation Relations department of the AMA, 59 per cent of physicians saw an increase of services provided by fee-for-service doctors; 44 per cent an increase by HMOs; 27 per cent an increase by IPAs; 39 per cent an increase by surgical centers; 77 per cent an increase by hospital outpatient services/clinics; 49 per cent an increase by nurse practitioners/midwives; and 52 per cent an increase by physicians' assistants.

(From Survey and Opinion Briefs, Group on Public and Federation Relations, American Medical Association)

VIDEOCASSETTE FROM AMA: "BORROWING MONEY"

The American Medical Association offers a videocassette course on "Borrowing Money" which explains how to prepare documentation, information, and specific money requests before seeking to borrow money from a bank--the first of a series of AMA practice management videocassettes. It may be rented for \$25 (members) or \$35 (non-members), or purchased for \$250. Orders should be directed to: Department of Practice Management, AMA Headquarters, 535 No. Dearborn Street, Chicago, Illinois 60610, or call (312) 751-6667.

TWO SENTENCE ESSAY: PRIMARY CARE FOR THE ELDERLY

"As people get older they look for medical care more often, and they want one physician to whom they can turn with most of their problems. They don't want medicine by committee." ... Robert G. Petersdorf, Dean, School of Medicine, University of California, San Diego.



Everyone's talking
about helping patients
understand their
prescription medication...

with your help,
Roche has been doing
something about it



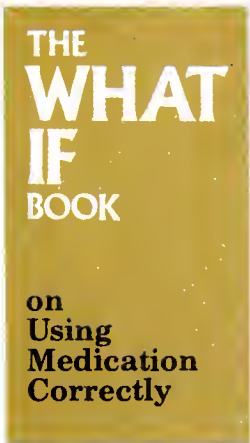
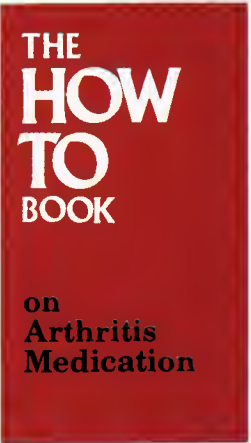
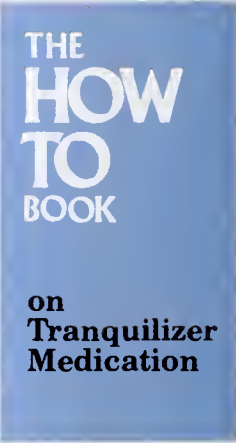
WHAT IF

Roche Laboratories followed up the production and free distribution of 24 million copies of the Medication Education *WHAT IF Book* to patients via physicians, pharmacists and other health care professionals with a new series of booklets on important classes of medicines. The new booklets can be used with your patients to supplement your directions on

HOW TO

- Use these classes of medicines appropriately
- Ensure maximum benefits from their proper use
- Avoid risks that can follow their misuse

Check below for free supply of booklets desired; complete coupon and mail to Professional Services Department, Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110.

					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Roche Laboratories
Division of Hoffmann-LaRoche Inc.
© Nutley, New Jersey 07110

NAME _____

STREET ADDRESS _____

CITY _____

STATE _____

ZIP _____

Medicines that matter from people who care

PRINTED IN U.S.A.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



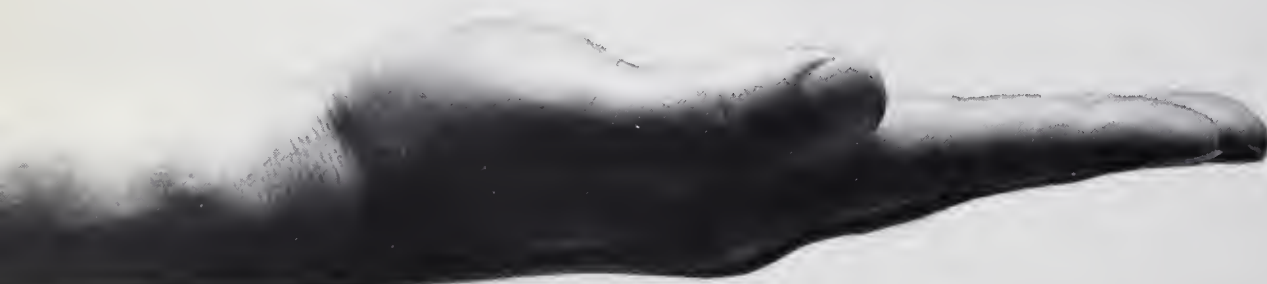
More convenient for your patients

Upjohn

There's more to ZYLOPRIM[®] than (allopurinol).



- From Burroughs Wellcome Co. – the discoverer and developer of allopurinol
- Patient starter/conversion kits available for easy titration of initial dosage
- Patient compliance pamphlets available
- Continuing medical education materials available for physicians



Prescribe for your patients as you would for yourself.

*Write "D.A.W.," "No Sub," or "Medically Necessary,"
as your state requires, to make sure
your patient receives the original allopurinol.*



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

The 48th Evacuation Hospital

Elsewhere in this issue Doctor John Dziob records a chapter in the history of the 48th Evacuation Hospital, the World War II army unit of the Rhode Island Hospital. The 48th Evacuation is only one of the many military and foreign service contributions from that hospital.

Right after the Spanish-American War there was a large convalescent hospital on the Eddy Street side of the old hospital. In World War I, Navy Base Hospital Number Four in Queens-town, Ireland, was staffed largely by Rhode Island Hospital doctors and nurses. At the time of the Halifax munitions explosion in December 1917 forty-eight doctors and nurses from this state, most of them from Rhode Island Hospital, went immediately to join the rescue effort. In 1962, when the Algerian Revolution had resulted in over 80 per cent of the doctors leaving that country, ten physicians from the Rhode Island Hospital operated a hospital outside Algiers for a month under the aegis of Care Medico.

In addition in the past few decades there have been numerous examples of Rhode Island Hospital doctors giving their services in various missions and clinics throughout the world.

The 48th Evacuation Hospital was special in that it was the largest in numbers and the longest in time of service of these ventures. When mobilized on August 17, 1942, 69 doctors and nurses joined a cadre of enlisted men that had been training for months. After assembling at Camp Devens and participating in maneuvers in Tennessee, the unit sailed from California for India on January 20, 1943. Six weeks later the outfit was left at the end of a narrow gauge railway in a bamboo thicket in northeastern Assam about forty miles from Burma. Because of lack of military action, the hospital soon split in two. The smaller

group, of which Doctor Dziob writes, went forward with the US Army Engineers, building the Ledo Road through the jungle to connect with the old Burma Road to bring supplies to China through the back door.

The rest of the hospital went back into Bihar Province in India to provide services to evacuated Chinese troops. This was interesting duty, treating tropical disease, vitamin deficiency, tuberculosis, and parasitism among other things, but was made less desirable by temperatures that exceeded 100°F daily maximum for months on end. During one memorable two-week stretch the daily maximum varied from 120° to 127°F.

About a year later the hospital was reunited in Ledo, serving as a general hospital for Chinese casualties from the North Burma campaign. At one time over 1700 patients were hospitalized in what had been a 750 bed unit. To do this, numerous personnel were added. Eventually the hospital moved into a teak plantation forest in North Burma. In the first half of 1945 the original Rhode Island unit was broken up when the personnel were rotated back to the States singly and in small groups over a four-month period.

These endeavors have added much to the tradition of the Rhode Island Hospital. A camaraderie persists among those who have participated in them. It is inconceivable that another war would provide experiences similar to those of the past. Nonetheless, temporary foreign service of one sort or another enriches those who participate, and to some extent the institutions they represent. It is to be hoped the tradition will be carried on.

Thomas Perry, Jr., MD

MEDICAL CLEARING BUREAU

*A division of National Service Associates
Established for the Rhode Island Health
Professions in 1932*

COLLECTIONS — IN YOUR BEST INTEREST

8:30 A.M. to 4:30 P.M. WEEKDAYS

273-4500

Just what the Doctor ordered

Systems & Solutions has got the cure that will help you efficiently manage your medical or dental office. Our computer system will handle all insurance forms, do practice financial analysis programs, receivable aging reports, passwords and security codes, and more, making your office paperwork less of a bitter pill to swallow. Prescribing the right medicine is not always easy, but at Systems & Solutions *we've got the solution for you!*

**SYSTEMS
&
SOLUTIONS**

50-52 Main St., East Greenwich, RI 02818



[401] 884-7971

PCI in Small Cell Carcinoma of the Lung

To the Editor:

I am writing in reference to the article entitled "Prophylactic Cranial Irradiation in Small Cell Carcinoma of the Lung" by Doctors Salvatore and Jenkyn, in the June, 1982 issue of the *Journal*. I believe that a somewhat different set of conclusions can be drawn from the data they cite.¹

Figure 2 in their paper indicates an apparent small difference in the number of patients *who develop CNS symptoms*. This flow sheet is misleading. The 5 per cent of patients who receive prophylactic cranial irradiation (PCI) and ultimately *fail in the brain* should be compared to the 23 per cent of the patients who do not receive PCI and *fail in the brain*. Thus the benefit of PCI is to *prevent* 18 per cent of patients from experiencing cranial metastases. Because of the disabilities, and associated emotional turmoil that such metastases produce, it is a complication of the disease that warrants prevention.

The authors suggest that in considering PCI, "clinical judgment remains the final arbiter in each individual case." A more specific set of indications for PCI can be constructed. Aggressive treatment with chemotherapy and radiotherapy can produce a significant percentage of long-term disease free patients. In one study, 23 per cent of patients with limited small cell carcinoma were free of disease and off all therapy, more than 2½ years from the time of diagnosis.² Such treatment is ultimately fruitless if the patient dies of cranial metastases.

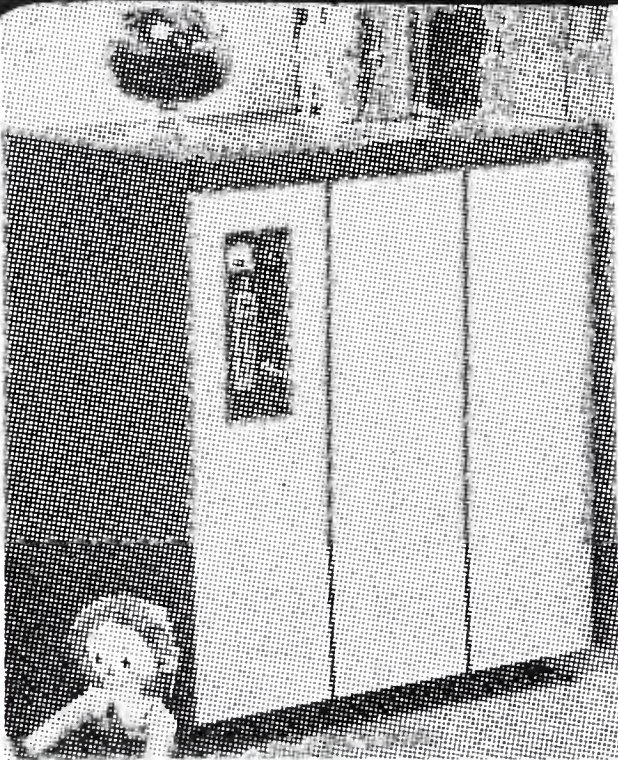
In the study by Levitt, et al³ five of twenty-nine patients who received PCI ultimately developed symptomatic cranial metastases. However, none of these patients had achieved a complete remission from their initial therapy. While PCI has yet to improve the overall median survival of patients with small cell carcinoma of the lung, it is clear that for a patient to be cured he must not fail in the brain. PCI is a safe and effective way of minimizing this risk.

Doctors Salvatore and Jenkyn feel that patients who are unlikely to return for close follow-up are obvious candidates for PCI. To this group I would add those patients going on aggressive multimodality therapy, as well as all patients achieving complete remission.

Alan D. Steinfeld, MD
Assistant Radiotherapist
Rhode Island Hospital
Assistant Professor of Radiation Medicine
Brown University

References

- ¹ Baglan RA, Marks J: Comparison of symptomatic and prophylactic irradiation of brain metastases from oat cell carcinoma of the lung. *Cancer* 47:41-45, 1981.
- ² Minna J, Lichter A, Breneton H, et al: Small cell lung cancer: Long term, potentially cured survivors in National Cancer Institute trials. *Clinical Research* 28:419A, 1980.
- ³ Levitt M, Meikle A, Murray N, Weinerman B: Oat cell carcinoma of the lung: CNS metastases in spite of prophylactic brain irradiation. *Cancer Treatment Reports* 62:131-133, 1978.



Briox. the new, safe concept in oxygen for home use.

NO MORE TANKS

Safe, simple, convenient and economical. The Oxy-Concentrator actually concentrates oxygen from normal room air and delivers it to the patient in enriched, filtered and conditioned form.

CALL US NOW FOR DETAILS

Medicare and Third Party Approval

A Complete Medical
Supply Center

Medicare Claims
Accepted

UNITED
SURGICAL CENTERS

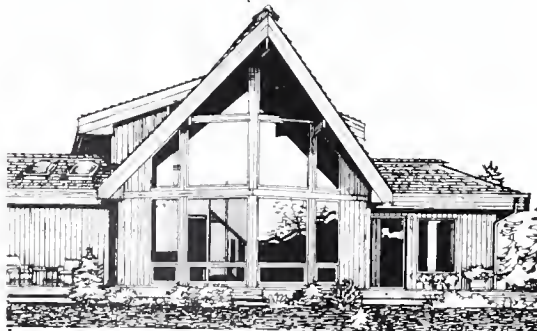
685 Park Ave.
Cranston
(401) 781-2166

If you've got the dream, we've got your home.

The versatility of Lindal's distinctive designs makes your dream home an affordable reality. 60 original plans to choose from ... or we'll help you design a plan that's all your own.

Lindal Homes offer the elegance of dramatic cathedral ceilings, free-flowing interiors, and the warmth of beautiful cedar. Our unique open-post-and-beam system makes it easy to plan your home just the way you want it.

Visit us to find out more. You'll discover that Lindal has the home to make your dream come true.



LINDAL CEDAR HOMES®

Independently Distributed by

Trident Enterprises
201 Prospect Avenue
Wickford, R.I. 02852
(401) 294-9162

☐ Enclosed is \$4 for the 52-page Planbook.

Name _____
Street _____
City _____ State _____ Zip _____
Phone _____ Location of building lot _____

- ☐ Development Consulting
- ☐ Design and Build Services
- ☐ Total Property Management
- ☐ Brokerage
- ☐ Investment



**Kates
Properties**

290 Westminster Street
Providence, RI 02903
401-751-9600

BOOK REVIEW

"It Happens to Doctors, Too"

by Abraham J. Twerski, MD, Center City, Minnesota, 1982.

Do you remember the old radio-TV show "This Is Your Life"? Abraham Twerski has written a short book in which most physicians can find part of their life. He has written of the psychosocial development of the doctor and of the varied reasons why the hopefully integrated and productive life we all desire may not always obtain. Physicians enter the profession for varied reasons — the desire to alleviate suffering, prevent death, money, to cope with personal inadequacies, among others. The training in medical school and residency instills an attitude of superiority, if not omnipotence. In what other profession can one simply write orders and expect an entire system to respond and have as its primary purpose the obedience to those orders (except perhaps the judge in court)?

Also, Doctor Twerski points out that medical decisions are often of necessity made quickly, breeding in the physician a general tendency to be impatient and intolerant of delay. Since medicine and the practitioners of medicine are imperfect and since our arch enemy, death, is fore-ordained to win every battle, we are in a sense doomed to failure. This ultimate loss may be coped with by constructive methods or by less adaptive means, such as blaming outside forces for our defeat. One of the most common maladaptive coping mechanisms used by physicians for the above and for many other problems is chemical dependency. Doctor Twerski defines alcoholism as existing "when any normal function becomes dependent on alcohol (or other mind altering drug)."

Ask yourself whether you need a drink (or pill) to be sociable, to relax, to enjoy sex, or to eat well. Unfortunately, chemical dependency (alcohol or other drugs) is a progressive disease. Unfortunately, most physicians have little or no training in recognizing this disease. Unfortunately, if a physician is recognized by his colleagues as hav-

ing a problem of this sort, he is protected by a "conspiracy of silence," effectively preventing any treatment. Unfortunately, the problem is often regarded as a matter of moral weakness, or character defect, or social maladjustment, rather than as a disease with definite diagnostic criteria and specific treatment. Unfortunately, most physicians do not realize that treatment of chemically dependent physicians is remarkably effective.

Doctor Twerski addresses all of these topics with insight and clarity. There are also chapters on the impaired nurse (Should we also think about pharmacists, OR technicians, or other professionals?) and on that usually neglected long-suffering soul, the physician's spouse. Her role as the spouse of a sick physician may be pivotal in his recovery (or lack of recovery). Alternatively, she may be the primary afflicted person. The word "primary" is used, since everybody in the family is affected by the illness. Can a physician with an alcoholic spouse be expected to function to his or her potential? There appears to be a "conspiracy of silence" in this regard also, as physicians are reluctant to share the "family secret." Yet, there is help; and in this little book by means of description and by narration of several poignant stories of afflicted people, the paths to recovery are pointed out.

Also, it should be said that no disease has a perfect record of diagnosis and treatment. Alcoholism is no exception. There are other maladaptive behavior patterns than chemical dependency. These are not dealt with comprehensively in this book but should be recognized. Depression, burnout, and other psychic maladies are also prevalent among physicians. In an appendix, there is a suggested outline of structure for Impaired Physicians Committees for hospitals and states. A point which deserves emphasis and is not stressed in this section of the book is the separa-

tion of disciplinary and Impaired Physician Committee members. Thus, the chief of staff or chairman of the department or members of the executive committee should not be on hospital committees to help afflicted physicians.

All in all, this is an excellent book and, contrary to the trend of the times, inexpensive. I think that all physicians would benefit from reading it.

Those afflicted with the disease will gain hope and perhaps see an entry into the treatment system. Those not afflicted will gain knowledge of the disease and be better qualified to help their colleagues.

Herbert Rakatansky, MD

PRIME LOCATION

Centrally located to Rt. 95, KCMH, and Apponaug.

Suitable for medical, paramedical or professional office. 1000-8000 sq. ft. For sale or lease. Will build to suit. **738-6611.**

**PARK AVE. PROFESSIONAL BLDG.
1020 Park Avenue
Cranston, R.I.**

Modern completed medical office suite available, including 3 examining rooms, lab room, private office, reception room, clerical office, with all facilities. 1144 sq. ft.

353-5555

Ten Years Before “M*A*S*H”

Rhode Island Hospital in the CBI Theater in World War II — One Man’s Memories*

John S. Dziob, MD, FACS

Detachees — “Up for Grabs”

“Major! Stop! Don’t sit! — A cobra!”

We scrambled away, the major and I, in one sweet hurry.

“Didn’t you see him on that ledge? You would have dangled your foot right in his mouth. Wow! That was close.”

We had been about to rest on the edge of a small, makeshift structure of railroad ties, bridging a bubbling and sparkling, shallow, mountain stream. Both of us had plodded with mud-sucking feet for a couple of hours, at times above our ankles, in the road’s, pig-sty-stinking, leech-sullied muck, after the jeep had dropped us off to continue the remaining miles on foot. The driver had already taken us through Pengsaw Pass and Hellgate into Burma from India, but could go no further as the road was blocked by a broken-down truck about five miles from our destination — a spot called Tinchā on the mushrooming Ledo Road in Burma.

Shortly after breakfast that morning, Major Stone and I had left Margharita, Assam, India by jeep for the Assam end of the Ledo Road. This

This is the 40th Anniversary of the Activation of the 48th Evaluation Hospital, the Rhode Island Hospital Unit in World War II.

staging area was an amazing hive of feverish activity: all manner of white and black and Chinese engineering troops, their hired Nepalese, Kachin, male and female Hindu, Naga and Gara mountain porters; mules, trucks, bulldozers, halftracks, caterpillars; jeeps and command cars — all milling about.

And what were we — two, weary, begrimed pack-toting, city-bred medicos — doing in this forelorn, God-forsaken jungle wilderness of Assam-Burma? On detached service from the Rhode Island Hospital’s 48th Evacuation Unit, that’s what.

We’d just completed an assignment (The Colonel Rice Mission); by we, I mean a cadre of officers and enlisted men left behind when the 48th Evacuation Hospital had pulled out for Ramghar, 200 miles from Calcutta, India, and 1000 miles back toward civilization. Compared to Assam that would be the lap of ease and luxury.

The army’s table of organization did not call for the full complement of an evacuation unit in the Ramghar deal; hence, some of us were the unfortunates let go to face an uncertain future. To do what they could to prevent their left-

* China — Burma — India.

John S. Dziob, MD, FACS, Surgeon, University Health Services, Brown University, Providence, Rhode Island.

behind doctors and enlisted men from being split up and dispersed, our commanding officers were able to secure for us the opportunity to volunteer for what was presented as a “secret, arduous, and hazardous mission” (it turned out to be all of that) to be called the Colonel Rice Mission; namely, to conduct a field trial with American and Chinese troops, to determine the efficacy and safety of sulfamerazine as a suppressant or cure of malaria, which was causing more casualties and disability than bullets.

Suffice to say that, given no other choice, we’d accepted, although with a certain amount of fear and misgivings; but carried it out, nonetheless, in a very creditable manner. However, that is another story.

Hence, after the completion of a month of trying, heart-breaking misery as *Anopheles* mosquito bait in Hansara, Doom Dooma, India, noteworthy for having the highest incidence of malaria in the world, and then after 3½ subsequent weeks of recuperation near Jorhat with a mild and dry climate, we were “up for grabs” again.

In the meantime, we prevailed upon Major Stone to beleager the top brass in Ledo, Assam, with whom he played bridge and chess, to give us the opportunity to set up and run a small hospital at the 59 mile mark of the projected 100 miles of road through jungles and mountains in Burma. Our British allies had expressed doubts about the Yanks putting through such a road in the face of four months of the monsoon rains plus the forbidding terrain and the ravaging malaria. Admiral Lord Louis Mountbatten, Supreme Allied Commander of Southeast Asia, in an address to the press in August 1944, stated, “. . . even more deadly and persistent in inflicting casualties is the mosquito. Malaria has conquered empires and can cripple armies . . . allied forces have suffered close on a quarter of a million casualties in Burma from sickness, mostly malaria and dysentery.” Ergo — the Colonel Rice Mission.

Major Stone did succeed in getting the hospital assignment for us. It hadn’t been easy. Colonel Leedham, 48th Evac’s Commanding Officer, wanted him for his executive officer in Calcutta. It required a direct wire to General Wheeler, the area commander, to keep Major Stone with us.

In the previous year or so, General Vinegar Joe Stillwell had been driven out of Burma by the Japanese to a sanctuary in Assam, India. He vowed to return, and the Ledo Road was to be the means to that end — a road of supply with the capability of supporting heavy equipment, including small tanks.



The 48th Evacuation Hospital at Murfreesboro, Tennessee (October, 1942).

For us Rhode Island detachees, a small hospital now would be a chance to stay together a bit longer, at least until we could regain our parent outfit — the 48th Evac Hospital from Providence, Rhode Island.

Why was it so important for us to remain intact as a group? For one thing, we’d learned how to cope with a hostile environment: Incessant rains (monsoon); daily temperatures of 104 degrees; soggy mildewed clothes; brain fever malaria; the ever-present jungle, with pythons, cobras, kraits slithering across paths; lizards and scorpions hiding in upturned helmets or shoes, left overnight alongside our mosquito-netted, canvas cots; the myriad of tropical vermin and blood-sucking, giant leeches nestling in the straw thatched roofs of our bamboo basha shelters; dim dam flies; voracious termites chewing everything in sight; and hordes of scolding, screaming monkeys swinging through the tree tops before dawn, making further sleep impossible. The leeches were ubiquitous: one of our lieutenant physicians found such a blood sucking worm hanging out of his urethra; a deft touch of the lighted, glowing end of a cigarette was the easiest and surest way to get it to drop off — the only thing good, to my mind, about a cigarette.

As queasy as the above might be, the second reason was more compelling: A medical officer on detached service was relegated to a “pool,” available for use wherever needed. One might end up with his kind; or, more likely, find himself the sole Caucasian in an all-Chinese army, our allies to be sure, but sans friends, sans companions, sans communication, sans your way of life, sans the simple amenities — in short, a lousy, miserable, lonely state, akin to Siberia.



Row 1 (from left): Doctors William Hunter, Irving Beck, Thomas Perry. Row 2 (from left): Doctors Eric Stone, William Leet, John Dziob, Merrill Gibson.

Such a prospect could really have a depressing effect. One of our detachees, but not of Rhode Island, faced with assignment to the Chinese Army, developed a cluster of bizarre symptoms that brought him to the 20th General Hospital (University of Pennsylvania) at Ledo, Assam. They found him to be suffering from acute anxiety; and, following several weeks of therapy, wanted to discharge him as fit for duty. He claimed to be no better. Physicians, unlike generals, do not physically strike patients; but the medical chief's verbal cat-o-nine-tails castigation of this poor wretched medical officer on grand rounds before his peers might be placed in that same category. All to no avail. The patient refused to leave his bed. The horrible phobic fear of that dreaded assignment had turned him into an emotional cripple. They had to send him back to the States.

Tincha

Major Stone and I were bound for Tincha on the 59 mile mark on October 26, 1943, as I've said, to join the cadre of three of our officers (Leet, Webster, and Jones) with their complement of enlisted men. They had been sent ahead earlier to stake out the groundwork of the projected hospital, and to work with the native construction crews. The Major would assume command. The remainder of our group would follow in relays of two officers and enlisted personnel at appropriate intervals, as the bamboo living quarters became available. There would be no nurses; strictly an all-male project.

So there we were doggedly plodding along, no further harrowing misadventures, and arrived safely at Tincha, but pretty much played out.

Before too long, the transfer of our entire group was completed, with bamboo bashas for the personnel and long bamboo structures for wards. The doors were opened, so to speak, and we began taking in patients.

Fate apparently had seen to it that our little outfit would be well suited for such an undertaking: Major Eric Stone, our commanding officer, came from a military family and was the chief of Urology at Rhode Island Hospital; William Leet, army reservist, was an internist; Frederick Webster, army reservist, a general practitioner also doing surgery; Irving Beck, internist, had an interest and capabilities in the laboratory and pathology; Israel Garber, army reservist, an internist with experience in x-ray; Edward Geuninger, EENT specialist; Sam Clark and Hubert Holdsworth, medicine; George Conde, GYN; and John Dziob. I had just left a surgical practice in association with Wilfred Pickles, MD, also founder of Neurosurgery at Rhode Island Hospital — which practice had included services in surgery, anesthesia, fracture and orthopedics, and neurosurgery. Little did I realize how necessary and invaluable all these skills would be to me in the months ahead in the jungle.

We'd already learned a valuable lesson from our acclimation in staging camps outside of Bombay, India; namely, to keep native help out of our kitchen and away from food handling. A perfect imprint of a thumb on a soup plate placed before you by a Hindu waiter, who, "short-taken," would have rushed outside, evacuated, wiped with a convenient leaf or stone, and returned to the kitchen to serve the Sahibs. This was enough to stamp the memory and convince any "doubting Thomas" as to which policy to pursue — that of the staging camp's British practice or our own.

So our food was relatively safe, at times even good, with fresh fish often — instantaneously fresh from the pristine mountain stream that gurgled through the floor of our deep valley, virtually past our front steps, as it were. A small stick of dynamite tossed into the river stunned the fish, which then were harvested floating on the surface by the fish detail farther downstream. The American has been called "ugly," but no one can say he is not innovative.

Our next move was to bring in patients. We did the public relations and selling job quite well too. A hot meal, the promise of an overnight lodging in a clean bunk, and the Ledo-bound ambulance drivers were putty in our hands, while their charges, transferred to our wards, became willing and happy patients. Our greatest ally in this re-

spect was the Road itself — an interminable mud mire a good deal of the time, segmentally washed out at various spots, or completely blocked by innumerable, unexpected landslides — all courtesy of the monsoon. If not for these prima donna caprices of nature, we probably would not have gotten away with it.

Hospitality was fine, but we also needed something to spread the good word that we were more than a glorified first aid station. An incident early in our budding career did just that. An ambulance pulled in, and Capt. Leet, Officer of the Day, shouted to me, "Johnny, I've got a perforated ulcer for you."

"You're kidding."

No, he was not kidding; yes, he was correct.

Within an hour I was giving the spinal, then changed my gown, scrubbed some more, and proceeded with the surgical repair of a perforated ulcer. My assistant, the ebullient Capt. Garber, proclaimed, "If we pull this off, we'll be famous." The patient didn't "turn a hair." Another first here for the 48th Evac.

Our little hospital became a polyglot of ailing humanity. We treated everybody and everything. In addition to our own American troops, we included our allies — the Chinese and the natives from the labor battalions.

The Naga Hill tribesmen, reputedly headhunters still, made regular visits to us for the white doctors' magic medicine to cure their coughs, pains, and infected leg ulcers, as well as to heal their sick offspring. They would appear garbed in loin cloths with their murderous crossbows slung over their shoulders and carrying wicked Kukris knives, along with bamboo canisters of a vile fermented brew. For the latter they would barter with the enlisted men. It was really as potent as it was vile; invariably, the partakers were left with long and horrible hangovers. But, I suppose, thirst is thirst the world over.

However, we treated these savages with "kid gloves" and friendliness, trying to maintain a good relationship, hoping thereby to ensure their bringing to us any of our airmen crashed in the jungle rather than their turning them over to the Japs. With every American brought in, they were rewarded with cigarettes, salt, and the highly prized parachute silks. Helicopters were still on the drawing boards; foods, arms, ammunition, and medical supplies had to be parachuted to our outfits in the jungle beyond the reach of the evolving Road. Hence, the availability of the silks.

Business was brisk. There was malaria, the scourge of the armies; endemic cholera in the

native labor camps; amoebic and bacillary dysentery in the natives, Chinese, and Americans alike; tuberculosis, pulmonary and peritoneal; intestinal parasites in everyone; snake bites; infected tropical leg ulcers; the usual run of army camp illnesses; an occasional case of leprosy; and the dreaded tsutsugamushi fever (scrub typhus). The latter was dreaded because it was lethal, because it was new and strange to us, and because we had nothing specific in the way of treatment. The diagnosis, however, became easy. In a patient very sick with high fever, we'd look for the clincher — a black, necrotic ulcer, usually at the belt line where the mite had bitten and fed himself, blossoming into the "black kiss of death." In spite of what we did for them, these patients usually died. It was real scary. Two of our own personnel fell victims: a laboratory technician and one of our doctors stationed along the Road. Both, fortunately, did survive, but only after long, protracted, touch-and-go illnesses.

Surgically, we treated severe burns, appendicitis (appendectomies), and all types of trauma galore. Sodium Pentothal intravenously was our favorite anesthetic, where feasible; spinal anesthesia, for abdominal cases. The exuberant Chinese labor battalions felled the giant trees in a helter-skelter fashion, ignoring approaching vehicles or humans on foot. The closer the miss, the higher their glee. They were gleeful a good part of the time, it seemed, and kept us busy treating all manner of broken bones, head injuries, ruptured abdominal viscera, and lacerations.

I'm sure it wasn't intentional on their part, nor done with "malice aforethought." They were just being consistent, for later they did unto themselves as they had been doing unto others; that is, when General Stillwell supplied them with light tanks. They were the wildest drivers in the world; and "hell-bent-for-election," not a few of them failing to make the numerous curves on the Road, ended at the bottom of deep, steep-sided gorges, both men and machines, as bean-bags of broken bones and mechanical piles of junk. Understandable? Yes — their ages, mainly in the middle teens, some in the twenties, their training period with tanks, very brief indeed. Much too young you might think; but, as we'd learned in a later unpopular war, the gun is just as deadly when the trigger is pulled by little better than children.

We needed x-rays badly, so Capt. Garber, wise in the ways of army protocol, procured the 48th Evac's stored x-ray equipment in Margharita and had it delivered to us. It certainly was doing no

good there in wraps. We put it to fine use immediately, congratulating ourselves for the fact that we had the first functioning x-ray department in the jungle so close to the Himalayas; again, another first for Tinch.

When the need arose for more wards, we had a neat solution. The lieutenant engineer in charge of the native construction crews stationed nearby, loved to watch surgery. When Major Stone took off up the Road to check Lieutenants Holdsworth's and Clark's first aid stations, to be gone for a day or two depending on the weather, bad most of the time, we'd make a bargain with the lieutenant — a second assist at an abdominal operation in exchange for another basha ward. He must have been a frustrated surgeon at heart, for he always jumped at the chance, and the Major would return to find a new structure peopled with patients.

So successful were we in our hospitality endeavors, the "highjacking" of ambulances, and in physical expansion, that the 73rd Evacuation Hospital at the Ledo end of the Road, with a full complement of doctors, nurses, and enlisted personnel, found themselves with empty beds and time on their hands. They began squawking that we were putting them out of business.

With the influx of patients, we were able to conduct our own medical and surgical grand rounds. The word got about, and medical officers in stations along the Road dropped in. Headquarters in Ledo must have been impressed and gratified, for they surprised us with the addition of a dental officer to our staff and more personnel as needed.

By and large, our wardsmen did a satisfactory job, not of course with the ease, gentleness, and innate compassion of the female nurse and, as a matter of fact, sometimes even in a rough, ready, and crude manner. One of our Captains relates an incident that highlights this point: A wardsmen approached him, casually executed a languid salute, and out of the corner of his mouth said, "Sir, the f . . . patient in bed six, Sir, has not had a shit, Sir." Raw English can be very explicit to be sure, but coming unexpectedly and inappropriately, is as much out of place as an obscenity uttered in a cathedral and almost as disconcerting.

Then again, they were duped on occasion by the inscrutable celestial mind. The fracture in a case in leg traction was not being reduced in spite of adequate weights. It eventually came to light that Yang, his buddy, was piling stones under the traction weights at night to counter the pull, mak-



Darjeling



Camp in a bamboo grove



Inside of a Chinese ward

ing the patient happier and us frustrated.

On another occasion, my surgical wardsman reported that another Chinese patient had not had a bowel movement for a month. The wardsman, when questioned, at first embarrassed and confused, agreed that he had not emptied a bed pan for weeks. Was the celestial slipping out and surreptitiously evacuating elsewhere? Inconceivable! He was in traction for multiple fractures, and his abdomen had not been distended or symptomatic. Did he or did he not? I could never be sure. In response to my request that the situation be rectified forthwith, Dwyer, the wardsman, gleefully announced a little later — three pans full with repeated enemas.

But then, come to think of it, one of our medical captains found that going to the latrine was so distasteful, as a lot of us did, that he restricted his bowel movements to once in 7 to 10 days, ending up on an occasion at the 20th General Hospital to have his impaction relieved. I guess he was ashamed to tell us about it at the time.

Nonetheless, our results, both medical and surgical, were surprisingly good, excluding very extensive 2nd and 3rd degree burns, neglected cases of mule-kick rupture of abdominal viscera, and tsutsugamushi fever, of course. Penicillin was not available to us; we had to rely on sulfanilamide. Our patients were mainly vigorous males in the prime of life. I'm sure this helped a lot. Perhaps, too, we did not have to contend with resistant organisms. Be that as it may, we continued to be busy and to thrive.

Our enlisted men decided that we could use a place where patients and personnel alike could watch movies from more comfortable seats than wooden crates. They turned the side of a hill into an amphitheatre with tiers upon tiers of log benches. An article in the CBI Round Up (a GI newspaper) on the "Toughest Road in the World" (Ledo Road) by Tillman Durdin had this to say about the Tinchá Amphitheater: "A movie performance on the Ledo Road is one of the world's unique scenes. The screen is set up under trees at the foot of a slope, and the audience that sprawls on the ground or sits on logs in a close-packed group up the side of the hill is made up of white and negro Americans, half-naked Naga tribesmen, Kachins in their bright-colored loongyis or skirts, Nepalese in their grimy jodhpur-like trousers, Chinese, Indians, refugee Burmese, and perhaps a passing British officer or two." Joe E. Brown and Melvin Douglas as singles, Keenan Winn, William Gargan, and Paulette Goddard as a team, had the guts, braving every-

thing, to put on their shows for the boys in this fetid jungle.

And now, Tinchá was not only succoring, curing, teaching; but also, with the advent of the amphitheater, entertaining and maintaining morale in Stillwell's forces as well.

About six weeks after the opening of Tinchá, we were afforded the pleasure of a visit from the Inspector General of the area. Imagine his surprise and delight to burst into a valley, dotted with bamboo bashas, peopled and alive with bustling activity; to find Major Stone and Capt. Leet conducting medical rounds; Dziob and Webster in surgery; Beck performing an autopsy; Garber taking x-rays; a dentist doing his thing; and 167 beds occupied by patients. All this from the efforts of a handful of doctors and their cadre of enlisted men, who a short time ago had begged for just such a chance; and then had come through so gloriously.

Ten days later, the base surgeon informed Major Stone that Tinchá would be a permanent hospital, servicing the Ledo Road from the 14th mile mark to the 104th mile mark — the only definitive treatment east of the 14th Evacuation Hospital. Of course, we'd been doing just that, but now it was official.

Medical Emergency on the Ledo Road

We'd been functioning for 2½ months and were sitting down to evening chow, when, as happens to medical men the world over, Major Stone received an urgent message. He turned to me, saying, "Namlip wants a surgeon. One of their men has been shot in the abdomen with a Tommy gun accidentally. They're giving plasma and typing donors. I don't think there is anything that you can do, but you may go if you wish."

"Sure . . . I'll take Garber along . . . I'll need a jeep and a driver." It was 1630 hours. It would be dark soon. Namlip, a 50-bed hospital doing minor surgery, was 10 miles up the Road. Two weeks ago, I'd gone to Namlip in the morning as a surgical consultant — running time 1½ hours.

Said the Major, "Good luck. I'll expect you when I see you." We got the implication: The Road had been closed for two days by a landslide. Traveling by daylight was bad enough; by night, darn-right hazardous.

And so, there we were, three men in a jeep riding out of a valley on a monsoon drenched, dirt road, freshly spawned from mountainside and lush jungle, snaking its way for miles, passable at the moment, but washed out or buried under a landslide the next. We'd had a recent

“Red Alert” when Jap planes had been sighted with the possibility of paratroopers having been dropped in our area.

Captain Garber sat beside the driver, an experienced Sargeant. I perched alone on the hard, rear seat, a tantalizing target — a veritable clay pigeon for some itchy fingered sniper. We carried no side arms on this trip, relying on the Geneva Convention, but now I had second thoughts about that. All I knew about its guidelines was, “Don’t fire on anything carrying a red cross.” If that was all I knew about it, what could I expect from an illiterate Japanese peon! We were in uniform, carried no red cross, and did not speak their language. Well . . . tough luck. I’d have to think about it some more sometime.

So far, we were doing all right. Then, part of the way up a steep incline, it happened. Just ahead a truck had stalled; its load of giant tree trunks bound for the sawmill had slipped halfway out with the ends stuck in the mud, like the down-ends of see-saws, blocking further progress.

Captain Garber yelled, “We’re medics. We’ve got to get through. A guy at Namlip has a bullet in his gut. We’ve got to operate.”

A captain waved us to the precipitous edge of the road. It was no good. Impossible to squeeze by. “Oh Lord,” I thought, “mission thwarted before it had hardly begun.”

For a few long moments, everyone just stared at that pile of logs.

Then a GI voiced a suggestion: “Back the truck against the logs; maybe they’ll slide in.” With the shrieking of a 1000 banshees in torment, the giant trunks inched into the vehicle enough to permit us to get by.

“Wait just a minute,” the captain shouted, “Let my men put on your chains; you’ll need them; it’s very muddy up ahead.”

After the first blush of frustration and excitement had worn off, and as the jeep labored on, we became silent, each preoccupied with his own thoughts. In a little while, the sun was low and sinking rapidly, the going also becoming more difficult. The jeep chugged and slithered through the slime, groaned up the steep mountain sides, and bucked against large potholes. In open areas, one could see the mountains kiss the sky, where the mythical Shangri-La cradled in the crags of the mighty Himalayas — so massively majestic and awesome, so splendid but sinister, so lonely yet deceptive.

The darkness fell suddenly with the sunken sun, and the moon shone into valleys, engulfed in

dense blankets of mist, covering them like frosty shrouds. From afar throbbed the faint drone of a C-47 aircraft, laboring homeward from a hazardous run over the “Hump” — a modern Pterodactyl, as it were, in this dinosaurian landscape. I felt so terribly alone, our mission, almost certainly futile. We were a long, long way from home.

This would be no metropolitan surgery with shiny, tiled walls stacked with gleaming instruments, dotted with swiftly, smoothly functioning personnel, exuding the aura of cool efficiency and practiced perfection. No, not an iota of this. Instead, a dirt floor, in a bamboo shack, at the point of the trace of the Ledo Road, in naked, desolate wilderness. That Tommy gun blast at such a close range!

I shivered slightly there in the tropics, but not from cold. Was the grim reaper riding with us tonight? Was he drooling in unholy, gleeful anticipation? It would be the measured, skilful strokes of the scalpel against the swish of the scythe.

We entered a densely wooded area with massive trees, 150 feet high and 45 inches in diameter. Our headlights were masked into vertical slits to avoid detection by the enemy. Progress of necessity became slower. What a lovely place for an ambush!

Lights ahead . . . a clearing . . . Bashas — Namlip at last.

It was 1900 hours. I was at the victim’s side: Pulse and blood pressure good; the belly hard as a board. He was grievously hurt indeed. Captain Leone and his boys had done a magnificent job of resuscitation.

“Anesthetist? . . . Can any one give dropped ether?”

“Yes, we’re in luck,” replied Captain Leone. “An hour ago, a former Johns Hopkins resident dropped in for something to eat and a place to spend the night. We’ll make him work for his supper,” he added with a grin.

As I scrubbed, I could see our poor patient on the makeshift operating table. What terrible odds. Good God, this was a job for a master surgeon — not me. Suddenly, I found myself silently praying: “Dear Lord, please give me the courage, the skill, and the surgical judgment; but above all, please let me do no added harm by this, my intervention.”

We were operating. The meticulous, tedious closure of nine perforations, hop-skipping along the length of the small bowel from the jejunum to the ileum; also closures of an incomplete tear in the cecum and in the urinary bladder. About 3½ to 4 hours later, we were done. Now, it was in the

hands of the gods.

After some coffee and a snack, we were back in the jeep, and into the night from whence we had come, reaching Tinchā without incident. "Do you think he will make it," Garber asked, sleepily. It went rather well. "I don't know," shaking my head. "There are eleven chances of leakage; I wish we had had smaller suture material."

The postoperative course was stormy, but after two long weeks, he was "out of the woods." He would get well; and our mission of mercy had not been for naught after all.

Reunited

By mid-February 1944, the Road had penetrated through the jungles, over mountain ranges, and into enemy held territory (Hukwang Valley). The American engineering troops frequently had to stop, grab their rifles or grenades to beat off raiding parties of Japs, or run them down with their armored bulldozers, whichever was the most expedient.

Things were definitely picking up militarily, as Merrill's Marauders, an elite outfit of jungle fighters recruited from Guadalcanal, slugged by on foot over the muddy road past Tinchā on their way to battle; and the Chinese 22nd Division under the command of Lieutenant General Sun, graduate of VMI, the Virginia Military Institute, clanked by in light tanks. General Stillwell's plans had become a reality, the machinery of war was in high gear, and the big push had started.

A week after these events, Major Stone received orders to turn Tinchā over to replacements; to move his outfit back to the base area at Ledo, Assam; to occupy the 73rd Evacuation Hospital's site; to continue treating casualties there; and to prepare for the return of our parent unit, the 48th Evacuation Hospital, from Ramghar, India. For the following four weeks still on our own, although woefully understaffed, we handled battle casualties flown in by air transport.

On March 29, 1944, the 48th Evac arrived and absorbed us. The saga of Tinchā closes, and becomes part of the greater overall picture.

With the fall of Myitkyina in upper Burma, from the combined assault of Merrill's Marauders, Colonel Cochran's British air strikes, and General Stillwell's American and Chinese troops, the area was cleared for ferrying of the 48th Evacuation Hospital by air from India to Burma

into that bombed and burned out Burmese town and railhead.

There in a neighboring teak forest, the 48th Evac began functioning as a general hospital for Stillwell's Chinese army, with a bed capacity of a 1000 patients.

Doctor Palmer Congdon had joined the famous Marauders in response to a call for volunteers from the various hospital units, about eight weeks before the attack on Myitkyina; and served with them in the field, enduring the misery and horror of such a campaign in jungle and mountains.

The social highlight, if one can call it that, in Myitkyina was the visitation of Lady Mountbatten and entourage. Our nurses were thrilled, and we all felt complimented by this recognition.

But even though the Myitkyina chapters in the whole story of the Rhode Island Hospital in the China, Burma, India theater make fascinating recounting, they, nonetheless, seemed to us of the Tinchā Group to lack the improvisations, the excitement, the dangers, and the glamour associated with the exploits of that detached handful of doctors under Major Eric Stone on the Ledo Road. The Tinchā contributions to the medical effort during the evolution of the Ledo Road (later called Stillwell's Road) was certainly significant, perhaps even meritorious. In 1904-1913 Colonel Gorgas and his yellow fever volunteers had the Panama Canal problem; Colonel Rice and his Tinchā Malaria group (1943), the Ledo Road.

Actually, this group of the 48th Evacuation Hospital as it functioned along the length of the Ledo Road can be considered, in some aspects, as a prototype of the mobile army surgical hospital of the Korean War (M*A*S*H) a decade later.

All of the above and more we did see, experience, and accomplish; and in these pages make record of the same on this, the 40th anniversary of Rhode Island Hospital's participation in the China, Burma, India Theater of World War II.

Acknowledgments

My thanks to Doctors Beck, Congdon, Holdsworth, and Perry for the loan of their pictures, for reviewing the manuscript, and for the fun in reliving those hectic days.

148 Blackstone Blvd.
Providence, RI 02906

Realism in Health Maintenance — Part II*

Certain Fallacies in the Conventional Wisdom Regarding Nutrition and Life Style Are Presented

Alex M. Burgess, Jr., MD
William H. Meroney, MD

We live in a paradoxical time in relation to foods. Outstanding achievements have been made in the production, preservation, and distribution of foods which are clean, tasty, and wholesome. At the same time a strange glib group of self-styled nutritionists have been able, mainly for personal gain, to undermine public confidence and push forward items, often of astonishing inferiority, as "health foods." Words like "natural," "organic," and "additive free" have been invested with magic qualities, and prolific writers push forward diets varying from silly to dangerous.

The same group that alleges advantages in the "natural" foods with nothing added push high dosages of vitamins and protein concentrates, re-

gardless of the risks. The same ones that warn against monosodium glutamate (MSG) extol the virtues of wheat germ (a leading source of MSG).

Every time period produces its own new wrinkle. "Fletcherizing" one's food (long chewing) and The Hay Diet (not grass) had their day. We are living in a time when it has become a major preoccupation to concern oneself with salt, sugar, and fat.

The opinion is commonly stated that salt is "bad" because it causes hypertension, and that the average diet is much too high in salt. There is considerable evidence to support this view. In epidemiologic studies populations consuming little salt and having a low incidence of hypertension are compared with populations consuming large amounts and having a high incidence. When people from an area of low salt move to one of high salt intake, the incidence of hypertension increases. Also, on an individual basis, salt restriction in hypertensives usually results in a measurable, if therapeutically inadequate, reduction in blood pressure. Yet in a given population on high salt intake, only one in four or five persons develop hypertension, the others being spared no matter how high the salt intake, indicating that other factors are operative.

Certain strains of rats have developed hypertension when given huge doses of salt, but others have developed hypertension when deprived of salt. In man no evidence has yet been found in any individual population that establishes a relationship between dietary salt and the development of hypertension.

From the Rhode Island Department of Health and Rhode Island Health Services Research, Inc., Providence, Rhode Island.

* Continued from the November 1982 issue of the *Journal*.

Alex M. Burgess, Jr., MD, Consultant, Rhode Island Department of Health and Rhode Island Health Services Research, Inc., Providence, Rhode Island.

William H. Meroney, MD, Director of Professional Services, Rhode Island Department of Health, Providence, Rhode Island.

A distinguished group from the University of Leicester in England¹ has said, "It is therefore unjustified to claim that the rat studies indicate that salt is an initiator of the hypertensive process and thus restriction of dietary salt has its own main role in prevention." They further caution against wide-ranging dietary recommendations in healthy persons when evidence is insecure. Willett² says, "Few topics have stimulated more inconsistent and controversial data than the hypothesis that salt intake elevates blood pressure." However, many others, perhaps a majority, including prominent physicians, allied scientists, politicians, and science writers regularly emphasize that "salt is a serious element in the onset of life-threatening hypertension."³ The unpredictability of the response in an individual and the consistency of the prevalence rate in populations suggests that the dominant factor in man, and rat as well, is genetic. It then becomes a point of philosophy whether the entire population should be urged to reduce salt intake when only a quarter or fifth of them are salt-sensitive, and presumably they are or should be under medical care.

We don't presume to guess the outcome of the present conflicting views, but we would point out that the health educator or public health worker who constructs major programs in this area today may be red-faced tomorrow. The down-swing of the curve of Final Acceptance Development (FAD) may start any day.

Sugar is another interesting example. At the present writing its reputation is bad. However, the *News & Views* of the American Council on Science and Health says in an article written by Kathleen Meister (a research associate), "Popular wisdom condemns sugar, but scientific evidence implicates it in only one health problem, tooth decay, and even then only when consumed in a sticky form in between meals, not when consumed as part of a meal."⁴ Curiously, some would have us believe that complex sugars are wholesome, but that simple or refined sugar is not.

Going back to elementary principles, all the carbohydrates (including our most familiar sugar, sucrose) are broken down in the digestive tract to the simplest sugars, monosaccharides, before or during absorption. One doubts whether the blood stream in an intestinal wall can tell whether it is receiving a product of sugar cane, fruit, potato, bread, or spaghetti. There is much discussion of "empty calories" by anti-sugar protagonists, despite the absence of any evidence of disease in persons consuming anything

approaching a normal general diet in addition to unrestricted sugar. The calories of sugar, "empty" or not, do of course contribute to the total caloric intake, and, if that total is excessive, obesity is the likely result. However, statements that we sometimes hear, that sugar as such causes diabetes, are unsupported by any evidence known to us. Even so, such statements are made by some, denied by some, eventually building up the forces required for a spectacular FAD curve favoring one view or the other.

Serum lipids, with cholesterol as the index substance, have been assumed for many years to be important in the development of sclerotic changes in arteries, notably those of the coronary circulation. It was not at all uncommon 30 or more years ago to hear discussions at scientific meetings stating that, while cholesterol levels in the circulating blood were probably of importance, they were not generally determined by diet. The assumption of a dietary origin for cholesterol levels has come and gone since that time, not once but several times.

Recently we had the astonishingly emotional confrontation between the Surgeon General's formulation "Healthy People"⁵ and the critique by the Food and Nutrition Board of the National Academy of Sciences.⁶ The former advised restricted cholesterol intake, the latter did not, and the subsequent arguments reached the point of vituperation.

On August 8, 1981, The American Heart Association stated in a news conference that, while *serum* cholesterol (especially the low density lipid "LDL" form) is a reasonably clear risk factor for coronary heart disease, *dietary* cholesterol and other dietary fats may not be. This reverses a previous stand, and has not yet influenced the dietary advice given in their educational material. Robert E. Olson, MD, PhD, the president of the American Society for Clinical Nutrition, recently said, "Intervention in susceptible populations with both diet and drugs to alter overall mortality rates from a variety of chronic diseases by changing serum cholesterol levels has uniformly failed."⁷ Dr. Olson has further counseled a conservative approach saying, "... if data are incomplete or unconvincing as are the data relating diet modification to the prevention of heart disease, then it is better to withhold final conclusions and particularly advice to the public until there is tangible proof of benefits."⁷ If these shifts in opinion are confusing to the professional world, how much more so must they be to the public. Some of the confusion may stem from application

of data drawn from the healthy public to persons with known abnormalities of lipid metabolism. We presume that lipidoses should be treated by every means possible, including diet, however ineffective such means may be in normal persons.

One could continue discussing the rise and fall of concepts regarding dietary fiber, "red" meats, and scores of other food-related items, but this is only a minor part of the problem.

More important is the role of inadequate but persuasive nutritional advisers, ranging from pure charlatan to deluded scientist, who pour out large volumes of plausible prose sounding authoritative, but frequently based on inferior knowledge and — too often — commercial motivation. Their printed works outsell sex in the bookstores and create fierce public partisanship based on something akin to religious belief. The "organic" foods enthusiast has very little patience with those otherwise minded, who doubt that the tissues of a vegetable can react differently to a nitrogen compound offered in pure synthetic form and the same compound of natural origin, although the rate at which they become available may vary. The passionate believer is often qualified for this status by a combination of the very general public naiveté and the intellectual and educational qualifications associated with higher education. In the subcultures that are produced, neologisms like "orthomolecular," "macrobiotic," and the like abound and may furnish convenient alternatives to detailed knowledge. A common technique is to overwhelm the listener/reader with anecdotal "evidence" of deficiencies of trace elements claimed to be depleted from the overworked farmland. Such threats to normal people in this country appear to be slight indeed.⁸

Particularly disturbing is the current phrase "junk food," which defies precise definition and is often applied without reference to the nutritional value of foods in question. Use of the term is much easier than critical judgment. If it is being applied to substances of low nutritional content, surely water is the best example. The real issue is not the presence of these foods in the diet, but what else is eaten.

In other instances, the term "junk-food" is applied in relation to the source of the food rather than its nature. It has become customary for some to look down their noses at products of the "fast-foods" outlets. By contrast, Victor Herbert⁹ has commented on the fact that a cheeseburger with lettuce and tomato represents all four basic elements — meat, dairy products, vegetables, and cereals. It may possibly taste better prepared at

home, but even when precooked and immediately available over the counter is not significantly different nutritionally.

We find it bewildering that the present advice on feeding of infants and young children runs counter to that for older children and still-growing adolescents. Milk is the basic food in infancy of course, and, if the human variety is not accessible, a formula adjusted to its fat, sugar, and salt concentration is advised. (A salt-poor commercial formula recently produced infants seriously ill with alkalosis).¹⁰ Liberal amounts of milk, cheese, and eggs are recommended for young children, but rapidly-growing teenagers are cautioned against these same building blocks by many writers on this subject. We believe it is time for a critical review of our teaching and thinking in this area.

The FAD curve is perhaps too simple a formulation to apply in this field, but we suspect that nutrition will remain the playground of the pseudo-scientist, the dilemma of science, and the puzzle of the public.

Carcinogenesis — A Consumer's Dilemma

One of our children, a decade or more ago, when in high school, had a sign on his desk-lamp, "studying causes cancer." Nothing has occurred since then to lessen the public conviction that they sit in the midst of such a complex fabric of risk that the most logical response is worry. Headlines shout "cancer soars," and from one source or another we hear of associations of malignant tumors with smoking, radiation, chemical wastes, uranium, nitrites, chlorides, insufficient dietary fiber, oral contraceptives, promiscuity in women, multiparity for some cancers, nulliparity for others, low cholesterol, and a host of others.

Among these agents, smoking alone stands as a clear-cut case of an association that is causal for an important and common type of cancer. A few other agents are impressively associated with rarer types. The rest tend to represent suspected or weak associations with disease, some highly speculative.

The public spread of these allegations, some well-founded and some preliminary or fallacious, is a frequent occurrence. Just recently, a distinguished and talented epidemiologist appeared as an interviewee on the popular "Today" show on national television. He reported that he had been surprised in a recent study by the emergence of a high level of statistical association between coffee-drinking and cancer of the pancreas. As in his article in the *New England Journal of Medicine*

(which reached most readers a day or two later) he dutifully mentioned the preliminary nature of his findings, the possible source of bias, and the need for further confirmation. As usual, most listeners and the press paid little attention to these *caveats*, and in the days that followed one heard many references to the dangers of coffee. One doubts that there was any great change in coffee drinking, but one more seed of anxiety has been planted in the coffee drinker's mind, and the omnipresence of cancer risks again brought forth.

The facts confirm a rising rate of deaths from cancer, especially for some types and locations. Unhappily, the interpretation of death-rates is a very tricky business, since a fall in one common cause of mortality results in a rise in others. It is by no means clear how much of the current increase in cancer rates is the result of the fall of approximately 20 per cent in heart disease deaths which has been seen in the past couple of decades. Furthermore, some people who die *with* cancer do not die *of* cancer — that is, a woman who survives a few years with cancer of the breast is still exposed to all the other external and internal forces of mortality — heart disease, accident, or what you will. It would be helpful to have actual figures on the incidence or prevalence of cancer in living populations, but no generally tight system generating such figures is in use except in very restricted populations.

We have great difficulty in the identification of the underlying determinants of malignant disease. Lacking any single "necessary and sufficient cause" we still are in the phase of knowledge where all cancer appears to be multifactorial (like tuberculosis before Koch). When one authority says that 90 per cent of cancer is environment-related, another might with equal justification say that 90 per cent is genetic. The total percentage does not have to add up to 100 per cent when we deal with multiple interacting factors.

The problem of pinpointing causes is further made difficult by the fact that there may be a latent period of at least a couple of decades between a possible cause and the occurrence of detectable malignant disease. We will be wise to avoid anxiety-producing references to possible cause until the state of the art improves.

Here it is necessary to focus some attention on unrealistic expectations in the matter of treatment as well as prevention. The often-hinted cancer breakthroughs of the fund-raisers still elude us, and for many of the common forms of the disease treatment is fallible and is often a rear-

guard action in a lost cause. One can look only with compassion at the individual who has been through the entire mill of conventional medicine and surgery without real help, and is now ready to turn to any method, regardless of how poorly established or unconventional it may be ("chain or no chain, throw over the anchor — it might do some good"). With the human liking for the espousal of the new, the offbeat, and the miraculous, there are always stories in the press of individual experiences and remarkable outcomes which tend to outweigh the ponderous reports of carefully-controlled and well-documented studies based on long and precise observation of large groups.

Public perplexity is at its greatest in the field of cancer control, and unhappily it is matched, and fed, by an almost equally profound professional perplexity of the scientist and physician. The most authoritative reports are often written on shifting sands. Today's carcinogen is frequently innocent tomorrow, sometimes too late to save the industry involved in its production. Even the renowned "Love Canal" is getting some favorable reviews as the scientist looks again. Nitrites that were bad are now acceptable and, who knows, may be bad again tomorrow. Saccharin's reputation waxes and wanes, and so it goes.

The frequent revulsion against traditional medicine, the food industry, the drug industry, nuclear energy, and technology in general persuades some to turn to unhealthful practices in the name of health. They look back on a time when everything was simple, clean, and healthy, with no pollution, contamination, or additives. This time never existed in their lifetimes, nor for that matter probably at any time. The fantasy overlooks disease, lack of anesthesia, early death, hunger, deformity, and filth in the streets that characterized earlier periods. Naturally, those who look at things in the light of this fantasy are disheartened and disappointed by the way things seem to be going, since reality cannot meet such expectations. It cannot bring back what never was.

Where Does Fitness Fit?

Lewis Thomas, master of pithy and pregnant prose, has said: "Nobody can say an unfriendly word against the sheer goodness of keeping fit, but we should go carefully with the promises."¹¹ In a nutshell this is our principal message on this subject. If it does nothing beyond making us look and feel better, physical training produces a worthwhile product.

The risks are that the expressed or implied promises of long life and disease prevention may produce ill-conceived and dangerous activity of types or degrees not appropriate to some individuals. Along with the long-practiced training techniques of the athlete, we have received a mythology involving arbitrary routines, where presumed distinctions between exercise classified (for no very clear reason) as “aerobic,” “anaerobic,” “isotonic,” and “isometric” exercise are bandied about.

Weight lifting, for example, is not viewed as helpful but pushups and chinning on the horizontal bar are encouraged, with no objective evidence of differing effect. Salt replacement is bad during exercise, regardless of the vehicle or concentration, but good afterwards in the minds of some.* Like nutrition, physical training becomes a blend of solid knowledge, uncontrolled empirically derived techniques and myths.

Everyone can cite examples of the good health of the physically active person, but certain aspects of doubt remain. Jeremy Morris in England more than two decades ago¹² showed the lesser frequency of coronary heart disease among the bus conductors of London, who go up and down between the two decks all day, and their sedentary driver — colleagues. On the assumption that they entered their respective roles as similar physical specimens, this was viewed as evidence of an effect of exercise. The later article¹³ came as no surprise to some epidemiologists, since Morris went back to the original tailors’ measurements for uniforms of first employment, and found that differences in waist and other measurements showed that very different types of people applied for or were assigned to the two types of work. It thus remained unclear whether the subsequent level of activity had any part in the later health record. The exercise may have been, so to speak, the result of previous fitness rather than the cause of subsequent good health.

A similar dilemma arose after the death of Clarence Demar, “Mr. Marathon,” who won the Boston Marathon seven times and competed creditably until a few months before he died of cancer in his late ’60s. Physiological studies had shown him to have superb response to muscular

effort, and he was often cited as an example of the importance of keeping fit. At autopsy his coronary arteries had some sclerosis, but were considerably larger in cross-section than the normal individual’s vessels. On this basis some said, “See how continued training increased his coronary circulation,” and for each of these there was another who said, “See what you can do if you are given large coronary vessels.” So the matter of cause and effect is unsolved, and seems likely to remain so.

Those who shake their heads over the food, life-styles, and environments of our present society cannot fail to be aware of the astonishing accomplishments of today’s athletes. They are bigger, faster, more agile, and more skillful at sports in general than their predecessors. A good example is offered by the runners of the mile. After Roger Bannister first broke the 4-minute barrier in 1954, one after another and even groups have exceeded that speed. Just recently six of seven runners in one race broke the world’s record.* We do not believe there was anything wrong with their health. If these athletes are in any way representative of their generation, we must be doing something right.

Since our main theme in this discussion is unrealistic expectations, it is probably important to mention again that overblown allegations of specific health benefits may sometimes serve to lure individuals beyond their capacity into too rapid assumption of levels of activity that are inappropriate and risky. The spectacle of a somewhat obese florid jogger obviously pushing himself to the point of agony in the quest for health is neither uncommon nor pleasant.

Is Your Life Stylish?

The words “life-style” have entered our working vocabulary fairly recently. They represent older concepts, currently reemphasized, that were subsumed under the more time-honored term of general hygiene.

General good health, and interest in health maintenance, have grown increasingly in consequence of many past achievements arising mostly out of microbiology and immunology. Our main health problems, some hardly of “medical” origin, such as accidents, and some the residual problems of later life, such as arterial disease and malignant changes in body cells, re-

* The problem has been that, since sweat is hypotonic to serum, serum sodium rises and opposes sodium absorption in spite of a total body deficit. However, the addition of sugar to an oral salt solution promotes absorption of sodium and is effective either during or after exercise if the total concentration of the solution is approximately iso-osmolar with serum.

* It is ironic that while breaking the world’s record five of these runners lost the race.

main as our prime targets. The result is that much of what we face as causes of death or disability are assumed to be multifactorial. When we lack a single "necessary and sufficient" causal element for the larger health problems today, rightly or wrongly, we attribute them to the cluster of things with which they are associated.

Now more than ever, we find ourselves saying that the individual can influence his health by the way he lives and this is probably right, but we must emphasize once more that we are often groping, and lack the basis for confident prescription of preventive measures. We are often misled and conduct excursions down hopeful avenues that become blind alleys.

An interesting case in point arises out of the work of Breslow's department in California. He and co-workers as early as 1972¹⁴ commented on the observed correlations between death rates and certain "health practices." Their reasons for selecting the particular seven practices they studied were not always clear. The inclusion of use of tobacco and alcohol certainly rested upon a mass of evidence already in hand, but it is uncertain whether such things as eating breakfast or sleeping eight hours at night were screened out of a larger set of possible variables (and there must be hundreds) or were merely some that they predicted would score. Among the health practices, which some in the group have more cautiously termed "life-style variables," is sleeping a full eight hours. It is unclear whether hours of sleep can be viewed as a voluntary behavioral option, and that the person who sleeps five or six hours can and should undertake corrective action of some sort. In any case, the seven health practices promptly became popular as definitions of preventive life-style despite disclaimers on the part of the investigators. They remain so after the same group has subsequently shown that breakfast eating and between meal snacking do not continue to correlate as studies progress, and after Breslow has stated in a 1980 paper:¹⁵ "Such data alone obviously do not prove that following good practices as compared to not following them will assure 11 years longer life for men and 7 years for women. Drawing causal inferences from statistical data should be undertaken with considerable care and observing certain principles. . . ." The investigator has also pointed out that the size of his series is still too small to permit the appropriate sort of multivariate analysis. Yet most health workers seeking desperately for a defensible definition of ideal life-style have understandably seized upon this as a possible

signpost along a difficult road.

The concept that one's way of living is a determinant of health can be traced through the aphorisms of Hippocrates, and has never been doubted. It tends to be especially emphasized, for obvious reasons, where information as to cause of ill health is absent or incomplete. This is not to say that life-style does not always enter the picture — probably it does. Knowing the cause and effective treatment of syphilis does not remove its obvious connection with mode of life and personal habits. No one, however, would be content with a program for the disease that eliminated consideration of the causative organism, and specific measures directed at it. We have as yet no spirochete for cancer, though it may be lurking in the wings, and cancer of the lung may one day be preventable, even in cigarette smokers.

It would be counterproductive to raise a question as to the importance of living a healthy life, but we should perhaps stay short of the mind set that says, "If you are sick, it is your own fault," at least until we are given the means to select our own parents, and until a bit more information as to causes of disease comes to light.

Almost everything said in this discussion bears in one way or another on life-style, and perhaps that is what we have been considering since the first page. It is the point of origin and development of the FAD curve. It is involved with our expectations, realistic and unrealistic. Once we really know what is optimal life-style, specifically and confidently, we will be far down the road to health, but let us keep in mind that at present we are groping in semi-darkness.

Summary and Recommendations

This has been an attempt to suggest some points at which health advice needs to be brought into closer relationship with the state of the art in the fields of health maintenance and disease prevention. Unrealistic public expectations have been repeatedly generated, and these may be destructive to the quality of life in the present, and the reputation of health services in the future.

Over-expectation may be generated in many ways. We have tried to suggest the involvement of a normal human tendency to overreact to new things, related to a general curve of Final Acceptance Development (the FAD curve). Affecting this phenomenon, we see the variously-motivated activities of the scientific community, the commercial interests, and the communications media as they impinge on the ill-prepared public mind.

A frequent outcome is a morbid level of health

preoccupation which not only may impair the quality of the individual's life, but creates a sort of information-hunger which tempts both the legitimate health worker and the myriad fringe groups to sow the seeds of public expectation in unrestrained fashion. Often the new is accepted in an uncritical manner, and the established or old rejected out-of-hand.

The whole problem is worsened by the continuous change in what seems to be the scientific evidence. Today's risk factor is tomorrow's protective recommendation. The progress of advancing knowledge is irregular, often with a step or two backward for each step forward. Today's health adviser walks on shifting sands.

One must single out for special mention the promotional efforts of the private health agencies, in whose educational effort there is a regrettable warping due to fund-raising objectives. The forecasting of breakthroughs awaiting only the contributor's dollar has already begun to wear thin and erode the agency's credibility.

We have tried to focus attention on a few aspects where the conventional wisdom seems to us to be based on particularly insecure footing. The fields of nutrition, physical fitness, and general life-style are all matters of great importance, meriting the benefit of the best that science has to offer. But it has become a strong stimulus to both the legitimate scientist, and the greedy fringe operator, to come forth with a spate of advice, some sound, some baseless. The public is ill-prepared to sort out truth from trash.

In mentioning concepts which are either controversial or shifting, we have lacked both the desire and the ability to settle any of the doubts. We have merely tried to suggest that some findings are probably too preliminary, too insecure or too doubtful to merit incorporation in health education, especially when it involves the creation of expensive public programs.

* * *

It would be desirable to end this discussion on a positive note, by suggesting remedial action. Since what we have been covering seems firmly grounded in our social system, our economy, and in change-resistant human behavior, we are not ready to make confident suggestions. Much of the problem probably is older than history, and has only been magnified and clarified by today's expanding communications capability. This, too, has had its own version of the FAD curve where newness tempts over use. Perhaps, restraint may arise with time.

One may hope, too, that the scientific investigator will begin to appreciate more fully the force of his spoken and written words, and develop greater wisdom in the time and mode of release of his findings, especially when they are preliminary or tentative. Such restraint may to some extent tone down the media, thus lessening the swings of the FAD curve, and improving long-term public confidence in health information.

Already, health educators are gaining increased appreciation of the need for better health curricula in the schools. We have too long merely offered the sort of current advice that soon becomes obsolete, neglecting the basics of anatomy and physiology that make it possible to evaluate new information as it appears.

Viewing some schoolteachers from the outside, we see a tradition that teachers must be omniscient, and that the phrase "I don't know" is too often foreign to the professional vocabulary. In this regard they resemble most of the rest of us, but perhaps it matters more than average here.

More than a century ago Henry Wheeler Shaw, writing as "Josh Billings," was known for his ability to capsule truth in informal language. He said, "It is better to know nothing than to know what ain't so."¹⁶ There is probably wisdom here for today.

References

- ¹ Bing RF, Thurston H, Russell GI, et al: Blood pressure and salt intake. *Lancet* 1:1260, Jun 81.
- ² Willett WC: Drinking water sodium and blood pressure: A cautious view of the 'second look.' *Am J Public Health* 71:729-732, 81.
- ³ Greenberg D: Difference between salt and tobacco. *The Providence Journal*, August 10, 1981, p A19.
- ⁴ Meister KA: The food industry and nutrition. *American Council on Science and Health News and Views* 2(3):4-5, 81.
- ⁵ Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention. 1979.
- ⁶ Harper AE: 'Healthy people': critique of the nutrition segments of the Surgeon General's report on health promotion and disease prevention. *Am J Clin Nutr* 33:1703-1712, 80.
- ⁷ Olson RE: The Science and Politics of Nutrition, *American Council on Science and Health, News and Views* 2(3):8-9, May-Jun 81.
- ⁸ Mertz W: The essential trace elements. *Science* 213:1332-1338, 81.
- ⁹ Herbert V: The health hustlers, in Barrett S (ed): *The Health Robbers: How to Protect Your Money & Your Life*. Philadelphia, Stickley, 1976, p 101.
- ¹⁰ Schwartz RB: The Infant Formula Fiasco: The lack that will lead to a law. *American Council on Science and Health, News and Views* 1(1):11, 14-15, 80.
- ¹¹ Thomas L: *The Medusa & the Snail: More Notes of a Biology Watcher*. New York, Viking, 1979, p 25.
- ¹² Morris JN, Heady JA, Raffle PAB, et al: Coronary heart-disease and physical activity of work. *Lancet* 2:1053-1057, 1111-1120, Nov 53.
- ¹³ Morris JN, Heady JA, Raffle PAB: Physique of London busmen: epidemiology of uniforms. *Lancet* 2:569-570, 15 Sep 56.
- ¹⁴ Belloc NB, Breslow L: Relationship of physical health status and health practices. *Prev Med* 1:409-421, Aug 72.

- ¹⁵ Breslow L, Enstrom JE: Persistence of health habits and their relationship to mortality. *Prev Med* 9:469-483, Jul 80.
- ¹⁶ Billings J: Proverb (1874). Cited in Bartlett JR: *Bartlett's Familiar Quotations*, ed 14. Boston, Little Brown & Co, 1968, p 685.

75 Davis Street
Providence, RI 02908

A Primary Lung Cancer in a Chronic Lymphocytic Leukemia Patient

High Incidence of Concomitant Tumors Is Not Readily Explained

Abdul N. Memon, MD
John Yashar, MD

It is believed that Whipham was the first to suspect the coincidence of leukemia and another neoplasm.¹ At present, a number of reports indicating an increased incidence of other neoplasms among chronic lymphatic leukemia (CLL) patient population are available.²⁻⁵ Cutaneous malignant lesions have been the most common, while lung cancer appears to be next in incidence.⁶ For age and sex matched population, the risk of all cancers occurring in CLL patient population has been reported to be threefold. The same risk for skin cancers and for all cancers excluding skin cancer has been reported to be eightfold and twofold respectively.⁷

The present case is that of a 59-year-old white male who was diagnosed as having CLL and a squamous cell carcinoma of the lung simultaneously.

Case Report

In November 1979, a 59-year-old white male was hospitalized for the treatment of shortness of breath, night sweats, fever, and fatigue of two months duration. He smoked two packs of

cigarettes per day for 25 years and consumed 6-8 cans of beer daily for almost 30 years.

Physical examination revealed a slimly built, febrile (temperature 38.5°C), white elderly male who was profusely sweating and dyspneic at rest. A few nontender discrete 2 x 2 cm sized cervical lymph nodes were palpated bilaterally. Dullness to percussion and complete absence of breath sounds of the left hemithorax were noted. The remainder of the examination was unremarkable.

Pertinent laboratory findings revealed: white blood cells 193,000/cu mm with lymphocytes 90 percent, PMNs 7 per cent, monocytes 2 per cent, stab cells 1 per cent, platelets 234,000/cu mm, Hg 14.6 g/dl, and Hct 42.7 per cent. The rest of the routine chemical tests were unremarkable. Numerous blood and sputum cultures yielded no growth. Chest x-ray film revealed complete opacification of the left hemithorax. On bronchoscopy there was an obstruction of the left main stem bronchus by a mass which was found to be an invasive squamous cell carcinoma. Chamberlain's procedure showed metastatic epidermoid carcinoma with lymphocytic infiltration involving mediastinal and periaortic lymph nodes (Fig 1). Peripheral smear findings were consistent with CLL. Biopsy of a cervical lymph node revealed a picture consistent with CLL or lymphocytic lymphosarcoma. Liver-spleen scan was unremarkable. Serum protein electrophoresis showed a marked alpha-2 globulin fraction elevation with normal serum immunoelectrophoresis.

Abdul N. Memon, MD, Internist (Diplomat, ABIM), Oncologist (Diplomat, ABIM), The Memorial Hospital, Pawtucket, Rhode Island.

John Yashar, MD, Chief of Thoracic Surgery, the Memorial Hospital, Pawtucket, Rhode Island.

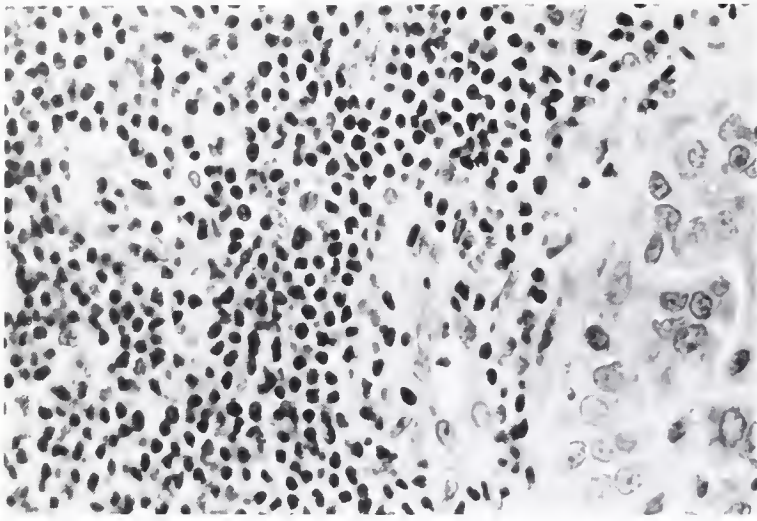


Figure 1. Lymphnode with monotonous lymphocytes and a focus of squamous cell carcinoma ($\times 252$).

In December 1979, the patient received radiotherapy to his chest and anterior mediastinum. In February 1980, re-expansion of the left upper lung was observed radiographically. The patient, however, continued to have shortness of breath, cough, fatigue and insomnia. In April 1980, the patient was readmitted with a diagnosis of possible tumor necrosis and abscess formation. He died a week later.

Discussion

The development of lung cancer in chronic lymphocytic leukemia is commoner among males than females.^{8,9} Often such patients are heavy smokers. The incidence of lung cancer in CLL has varied from as low as 0.7 per cent¹⁰ to a high of 7.5 per cent.⁸ Amamoo et al⁸ suspected that the incidence of lung cancer in CLL patient populations is 11 times higher than in the general population. Squamous cell carcinoma has been the most common histologic variety. Average time delay from the diagnosis of CLL to the diagnosis of lung cancer has been reported to be anywhere from 9 months⁸ to 30-60 months.¹¹ In one study, the mean age of 31 patients with leukemia, when a solid malignant tumor was demonstrated, was 68.4 years.⁹ At times, diagnosis of lung cancer in CLL is incidental, but frequently the diagnosis of CLL precedes that of bronchogenic carcinoma.^{8,9} There does not seem to be a significant difference in the survival of patients with bronchogenic carcinoma and CLL versus that in non-leukemic patients with lung cancer.⁸

A number of possibilities are entertained by various authors in attempting to explain the pathogenetic mechanisms of the high incidence

of lung cancer in CLL patient population. Uhr and Cone¹² have demonstrated the impairment of primary and secondary humoral antibody responses in CLL patients. T-cell abnormalities¹³ and inhibition of blastoid transformation response of normal lymphocytes by plasma and lymphocytic factors (T-cell blocking substances)¹⁴ are also reported. Han has showed not only that blastoid transformation responses of normal lymphocytes to PHA in CLL is markedly diminished, but also that the maximum response is delayed.¹⁵ Diminution of this blastoid response has been more prominent in CLL patients with 1) longer duration of the disease, 2) higher lymphocyte count, and 3) concurrent hypogammaglobulinemia, and 4) in patients who have had chemotherapy with chlorambucil, prednisone, or both.¹⁵ Wybran has mentioned the "diluting out" effect of T-cells resulting from an enlarged B cell pool in CLL.¹⁶ Although antileukemic therapy itself may, as speculated by some, be carcinogenic, Amamoo et al reject the idea that chemotherapeutic agents used in CLL therapy could contribute to the development of bronchogenic carcinoma.⁸

The patient described in this case report was a 59-year-old male who smoked and drank very heavily. Since CLL and squamous cell carcinoma of the lung were discovered simultaneously, the sequence of appearance could not be determined and the duration of his malignant disorders remain unknown. The patient did not have hypogammaglobulinemia, and the diagnosis of lung cancer was made before his CLL could be treated with chemotherapy. The only factor that could have presumably interfered with his immunologic integrity was his moderately high lymphocyte count (195,000/cu mm). After the diagnosis of advanced metastatic lung cancer, he survived only 5 months.

A high index of suspicion toward any new symptoms or lung lesion is essential in early detection of lung cancer in a CLL patient.¹⁷ Studies of 109 cases of CLL by one group has demonstrated that pulmonary involvement in leukemia could be parenchymal (diffuse or nodular) or localized (pleural, subpleural, bronchial, or peribronchial).¹⁸ Therefore, clinical features indicating development of lung cancer may be erroneously regarded as merely manifestations of CLL, thus delaying the diagnosis of pulmonary malignant tumor. Often chest x-ray films fail to convince the viewer who is looking for "typical" changes of lung cancer. Although radiologic abnormalities on chest x-ray study of CLL cases

could be due to leukemic infiltration, infection, or a malignant lesion, a firm approach of further work-up could be rewarding. Also a careful pre- and post-therapeutic immunologic evaluation of CLL patients may help clarify the phenomena leading to predisposition of CLL patients for the development of lung cancer.

Acknowledgements

We thank Doctors Jhung Jhung and Noubar Kessimian for their help in preparing the Figure.

References

- ¹ Whipple T: Splenic leukaemia with carcinoma. *Tr Path Soc London* 29:313-321, 1878.
- ² Beresford OD: Chronic lymphocytic leukaemia associated with malignant disease. *Brit J Cancer* 6(4):339-344, Dec 52.
- ³ Faber M, Borum K: Leukaemia and a malignant tumour in the same patient. *Brit J Haemat* 8:313-321, Oct 62.
- ⁴ Hyman GA: Increased incidence of neoplasia in association with chronic lymphocytic leukaemia. *Scand J Haemat* 6:99-104, 69.
- ⁵ Manusow D, Weinerman BH: Subsequent neoplasia in chronic lymphocytic leukemia. *JAMA* 232(3):267-269, 21 Apr 75.
- ⁶ Moayeri H, Han T, Stutzman L, et al: Second neoplasms with chronic lymphocytic leukemia. *NY State J Med* 76(3):378-381, Mar 76.
- ⁷ Manusow D, Weinerman BH: Subsequent neoplasia in chronic lymphocytic leukemia. *JAMA* 232(3):267-269, 21 Apr 75.
- ⁸ Amamoo DG, Moayeri H, Takita H, et al: Bronchogenic carcinoma in chronic lymphocytic leukemia. *Chest* 75(2):174-177, Feb 79.

- ⁹ Beresford OD: Chronic lymphocytic leukemia and other malignancy. *Scand J Haematol* 18:105-114, 73.
- ¹⁰ Stavrakys KM, Watson TA, White DF, et al: Chronic lymphocytic leukemia and subsequent cancer in the same patient. *Cancer* 26(2):410-414, Aug 70.
- ¹¹ Shankar PS: Bronchogenic carcinoma associated with chronic lymphatic leukemia. *Geriatr Soc* 29(1):40-42, Jan 81.
- ¹² Cone L, Uhr JW: Immunological deficiency disorders associated with chronic lymphocytic leukemia and multiple myeloma. *J Clin Invest* 43(12):2241-2248, 64.
- ¹³ Miller DG, Lizardo JG, Snyderman RK: Homologous and heterologous skin transplantation in patients with lymphomatous disease. *J Natl Cancer Inst* 26(3):569-579, Mar 61.
- ¹⁴ Tavadia HB, Goudie RB, Nicoll WD: Inhibition of normal lymphocyte transformation by plasma and lymphocyte factors in chronic lymphatic leukaemia. *Clin Exp Immunol* 16(2):177-182, Feb 74.
- ¹⁵ Han T: Studies of correlation of lymphocyte response to phytohemagglutinin with the clinical and immunologic status in chronic lymphocytic leukemia. *Cancer* 31:280-285, Feb 73.
- ¹⁶ Wybran J, Chantler S, Fudenberg HH: Isolation of normal T cells in chronic lymphatic leukaemia. *Lancet* 1:126-129, 20 Jan 73.
- ¹⁷ Moertel CG, Hagedorn AB: Leukemia or lymphoma and coexistent primary malignant lesions: A review of the literature and a study of 120 cases. *Blood* 12:788-803, 57.
- ¹⁸ Green RA, Nichols NJ: Pulmonary involvement in leukemia. *Am Rev Resp Dis* 80:833-844, 20 Apr 59.

Abdul Memon, MD
333 School Street
Pawtucket, RI 02860

Medical Office Suite
For Rent

SUMMIT MEDICAL OFFICE BUILDING

100 Highland Avenue, Providence

- Modern Construction and Conveniences including air conditioning and elevator
- Central location . . . on the main bus line and a minute's drive from Route 95 with plenty of off-street parking
- Complete X-ray and Lab Services
- Special Consideration to Physicians Entering Practice

Call: 272-2394

HEALTH HAVENS NURSING HOME

East Providence

Guard Your Future!

Check into the benefits
available to you in the
Army National Guard.

RHODE ISLAND



"AMERICA AT ITS BEST"

*Earn while you learn with a
part-time, smart-time job*

Educational Assistance Life Insurance
Space-Available Travel

Speak with an Army Guard Recruiter
Call (401) 277-3552 • (401) 277-3198

GROW WITH US IN THE SUN-BELT — The INA Healthplan needs physicians in family practice and most specialties in Miami, Tampa, Dallas, Houston, Phoenix, Tucson and Los Angeles. Attractive salaries and comprehensive benefits including professional development, retirement and profit sharing programs are provided. If team interaction and casual living interest you, send a brief CV to Medical Administration, INA Healthplan, Inc., 7616 LBJ Freeway, Suite 303, Dallas, Texas 75251.

4 8291



00444 569



3 1378 00444 5691

